The Builder.

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Architecture at the Royal Academy.

THE first impression one receives of the architectural room in this year's Academy is that of a heterogeneous miscellany rather than an organised exhibition of current architectural art. There is no definite attempt at grouping either of subject or authors, save that one or two favoured individuals have their drawings hung together, nor is the collection so arranged as to give any idea of orderly arrangement. There is a striking deficiency of important buildings, and those that are included, as Messrs. Aston Webb and Ingress Bell's design for the new University of Birmingham, and Messrs. Ernest Runtz & Co.'s New Gaiety Theatre and Restaurant in the Strand, are hung above the line. So also is Messrs. Lanchester, Stewart, & Rickards' unsuccessful competition design for the Manchester Fire Station, although in this case the scale and size of the drawing, as well as the fact of failure in the competition, might be held to justify the position—an excuse that could not be made with regard to Messrs. Webb & Bell's drawing, a sheet of geometrical elevations and plans that it is practically impossible to to see properly in its lofty situation. Fortunately, we are able to bring it more conveniently to view in the illustration in our present issue.

The drawings on the line and below it give countenance to the popular cynical dictum that a lucky fitness of frame is the most important desideratum for a position on the walls of the architectural room. Other qualifications necessary would seem to be eccentricity and mediocrity, to judge from much of the work exhibited. Certainly eccentricity, both of design and draughtsmanship, is strongly in evidence this year.

Ecclesiastical work is well represented in the present Academy, and an uninformed visitor might be pardoned for forming the erroneous conclusion that such work includes a large proportion of present architectural practice in England. This is, however, but a reflex swing of the pendulum, which, within recent memory, has gone too far in the exclusion of church work from the Academy walls.

The members of the Academy have for the most part been modest in their demands upon the wall space of the architectural room. Of the R.A.s Mr. Norman Shaw is unrepresented by designs under his own name, though at least one influenced by him is hung. Mr. Alfred Waterhouse also does not exhibit. Professor Aitchison has sent a design for "City offices," which cannot be said to be worthy of his position. Mr. Jackson has one drawing, a "Design for an Organ Loft and Screen in the Church of St. Mary-the-Virgin, Oxford," which would be commonplace but for the callous indifference to proportion which is to be found in much of Mr. Jackson's work, but is here almost exceptional in its crudity. The screen consists of three stone arches, with a wood groined fan and front over them. The three arches are alike in design except that, as shown on the perspective, the centre bay is slightly wider than those at the sides. Over each arch are three bays of the groined fan and six panels of the vertical front, those over the centre arch following the relation of this to the others in being slightly but perceptibly wider. The effect is most unpleasant and distracting. One feels that either the side or the centre is wrong in its proportion, but cannot say which, and the result in execution must be an instinctive apprehension that the builder has bungled the setting out. Looking at the design, one is inclined to surmise that the author felt that the centre required emphasis, but would not take the trouble to give that emphasis in a satisfactory manner. The organ case itself does not rise above the commonplace, with its three towers on crude corbelling. Mr. Jackson also exhibits full-size models of stall ends for Giggleswick School Chapel with seated figures of evangelists, modelled by Mr. T. Carter, somewhat strained in their attempt to convey inspiration. Here again the comparatively enormous size of crockets and finials is in its disregard of proportion the only variation on the very ordinary type of carved treatment that is followed.

Of the Associates' work we have already mentioned the only example of Mr. Aston Webb's artistic handling. Mr. Belcher is represented by five drawings and a model. Of the drawings two are of formal gardens; the one at Tapeley Park, North Devon, an adjunct to a formal house, the other a terrace garden at Cornbury Park, Oxon, ending in a Lord Burlington fashion of colonnade, both admirable and clever, with the rhythmical arrangement that is essential to prevent insipidity in this type of garden. "Guildown Grange, Guildford," is a quaintly picturesque unsymmetrical composition, shown in a coloured perspective indicating purple brick walls, with bright red quoins and arches, tile roofs, and white painted woodwork in cornice, loggia, doors, and windows, which combine to produce one of the most charming domestic designs that Mr. Belcher has given us. Business premises at No. 88, Fleet-street shows a victory of plate-glass over art until the second floor is reached, when art, thus beaten back, is quiet and undemonstrative. The interior of the board-room at Electra House is in low-toned grey colour, with Doric columns, above which are the dominant features of the design, consoles of abnormal size carrying a curved coffered ceiling. Mr. Belcher's model is a ½-in. detail in plaster of the dome and upper part of the central feature over the entrance of Electra House; it would be more convincing if raised to a height corresponding in scale to its actual position in execution.

Mr. Bodley has two drawings only, one, a perspective in pen and ink of his new church, Holy Trinity, Kensington, and the other the monument to the late Duke of Westminster in Ecclestone Church. The former appears to be a short and wide building, in that phase of Decorated which Mr. Bodley so well knows how to handle, and suggests that the necessities of the case forced the designer to utilise every inch of a limited site. Hence the buttresses are of the least possible projection, and instead of a tower there is no more than a cot for two bells on the west wall. The monument is a scholarly and richly-treated tomb for a recumbent effigy with a flat wooden canopy over extending from pier to pier of the arcade in which the monument is placed.

Amongst other church work, Mr. Caröe shows his design for the memorial slab to the late J. L. Pearson, R.A., in Westminster Abbey, a design with sufficient originality but restrained and dignified. In St. John's Church, Byfleet, also, Mr. Caröe observes a quiet restraint that gives an eminently suitable character to a suburban church. In his competition design for Lady Chapel to St.

Patrick's Cathedral, New York, he has rather let his exuberance of invention run away with him. The hexagonal plan, with an inner range of detached shafts, has tempted the designer into over-elaboration, particularly in his treatment of the vaulting, which is overloaded with a multiplication of ribs and severies.

Mr. G. H. Fellowes Prynne shows two of his characteristic interiors with the highly-elaborated screens of which he makes so much. In the church of St. John the Divine, Sidcup, the screen is an elaborate composition of stone carried to a considerable height and surmounted with a complete rood. In Christ Church, Lower Sydenham, the screen is carried the whole height of the building to the arch concentric with the barrel roof, and filled with tracery in the manner with which Mr. Prynne has made us now familiar. Both churches are treated internally with red brick and white stone.

Of St. Anne's Cathedral, Leeds, Mr. J. H. Eastwood shows us an exterior view of his really remarkable design and a detail of the great High Altar and baldacchino. Another elaborate design for a reredos is that by Mr. Walter J. Tapper for Grantham Parish Church, and of somewhat similar character, with a wealth of carving, is Mr. Harold Bailey's design for the reredos in Beckingham Church.

Messrs. Hicks & Charlewood have sent a design for a large town church in St. Chad's, Bensham, near Gateshead, of which the central feature is an octagonal central tower. Mr. Gerald Horsley's new church at Longsdon, Leek, Staffordshire, is simply and broadly treated with a bold western tower of low proportions, and an almost forced reduction of effort. Mr. Temple Moore, in his interior of St. Columba's Church, Middlesbrough, shows an originality which transcends the accepted canon of a central east window by adopting a central pier and twin windows. A further departure from customary modern type is the elevation of the altar to provide for a crypt and lower altar somewhat on the lines of S. Ambrogio, Milan, and other very early Christian churches. A good example of the modern type of church treatment is the design for a memorial church by Mr. Herbert Raine, of which is exhibited the west front. Of different type, more traditional in detail but still original in composition, is Mr. Bidlake's west front of St. Agatha's Church, Birmingham, shown in a geometrical elevation, and in which exception might legitimately be taken to the conflict between the belfry stage of the tower and the large window below. In their design for a new church in Essex, Messrs. Freeman & Ogilvy have sought character by constructing the nave arcade in timber, uniting with the construction of the roof, nave, and aisle. Another design for an east country church is that by Mr. Geoffry Lucas, for Manningtree, a quietly picturesque building of modest pretensions, but of considerable ability. A clever colour decoration scheme is that by Messrs. Nicholson & Corlette, for St. Matthew's, Yiewsley, in which a complete scheme of iconography is fully worked out and shown by interior elevations to ¼-inch scale.

The ecclesiastical work cannot be accused of eccentricity, though originality of treatment is by no means wanting.

Eccentricity in draughtsmanship is paramount in Mr. Inigo Thomas's suggested treatment of the Mall and approaches to Buckingham Palace, in which, with an affected archaism, plans and elevations are jumbled together with an elaborate travesty of the Royal Arms. The problem has been so much better solved by the designs submitted in the competition for the Queen Victoria memorial that this weak echo can hardly be regarded as other than a very feeble joke. Another eccentric drawing is that for a Cheshire house by Mr. A. E. Corbett, in which a meritorious design is spoilt by violent colouring. Another example of affectation is the drawing of a solicitor's office at Oldham by Mr. Edgar Wood, in which we can only suppose that the variety of sixteenth century costumes in which the figures in front of the house are clad is intended to emblematically indicate that the solicitor's clients are to be found in all ranks of Society, a fact that modern garb would have difficulty in expressing. In Mr. Hart's drawing of Ridgemount, Enfield, there is a suggestion of evening twilight as far as colour is concerned, which is not consistently borne out by the shadows. Mr. A. E. Corbett has another instance of eccentric draughtsmanship in his design for a club town house, which relies not upon its easily recognised ability of design, but screams for attention by the use of lines $\frac{1}{16}$ in. broad.

It is pleasant to turn from such strident shrieks to a design like that for the new wing to Ascot Priory by Mr. Leonard Stokes, in which originality without eccentricity, knowledge without pedantry, refinement without loss of virility, thought without labour, are evident in every line and every detail. In his design for Hill End, Wendover, Mr. Stokes, with quite different *motif*, shows a broadly treated rough-cast house of eighteenth-century flavour, that, as indicated by the small plan, complete with scale and compass, is an eminently suitable home for a busy brain-worker like the owner, Mr. Lawson Walton, K.C., M.P. In the same category with Mr. Stokes' work must be placed Mr. Guy Dawber's design for Westhope Manor, Shropshire, a charming combination of stone, half timber, and rough cast. Messrs. Ernest George & Yeates are represented by Foxcombe, Oxford, a characteristic transformation of a comparatively small house into a country mansion. In the interiors of the Duchess' boudoir and the new dining-room at Welbeck Abbey the same architects show two able examples of different phases of Italian Renaissance, the former of sixteenth century the latter of eighteenth century type.

A strikingly picturesque grouping is to be seen in Mr. Unsworth's design for "The Saracen's Lair, Mayford," whilst Mr. Arnold Mitchell is well represented in his design for the Royal Villa and Golf Pavilion at Le Coq-sur-Mer, Ostend.

Mr. Mountford has only his interior view of the lower hall of the new Sessions House for the City of London.

Mr. Reginald Blomfield has three drawings, the new organ gallery and case for the Chapel of Haileybury College, illustrated in our present issue, and an interior and exterior view of the new entrance and vestibule at Brocklesby Park.

We shall have more to say on some of the other exhibits on another occasion.

NOTES.

The London Water Bill.

THE Parliamentary Committee to which, after its second reading, the London Water Bill was referred, has come up to the present time to some important conclusions. It has decided not to alter the date of the transfer of the undertakings of the Companies, and also to adhere to the provision which eliminates the customary 10 per cent. additional compensation for compulsory purchase. Whether the shareholders are to receive all cash or all stock has been left over for further consideration. It has also been decided that the originally proposed cumbrous number of sixty-nine members on the Board is to be reduced to thirty-five. The very important proviso in regard to compensation can scarcely fail to be regarded as a precedent. There can be no reason why the 10 per cent. compensation should not be applicable to other undertakings, if it is not applicable in the case of the London Water Companies.

Stonehenge Again.

THE Committee appointed by the Wiltshire County Council, consisting of the Marquis of Bath, Mr. Percy Wyndham, and Mr. Fuller, M.P., to investigate the question of right of way to Stonehenge, has now made its Report. The three members arrive at different conclusions. The two former hold that the public have no right of way to the monument, Lord Bath going as far as to say that those who have gone to it are trespassers. Mr. Fuller, on the other hand, holds that there is a right of way, but that it would not be desirable to enter into a legal contest on the subject. It is obvious that this informal inquiry has not, therefore, brought us any nearer to the knowledge of the true legal rights of the public, but we think the Committee are right in their desire to avoid legal proceedings, for, as we have already pointed out, a right of way to a place does not give a right of control over it. The Highway Committee of the County Council have the matter still under their consideration, and it is to be hoped that they will suggest a reopening of negotiations with Sir Edward Antrobus with a view to Stonehenge being vested in the County Council, which is clearly the right body to be trustees of it.

The Hackney Railway Accident.

As might have been expected, the verdict on the victims of the Hackney railway accident is one of "Accidental death." No amount of care—and none seems to have been wanting in this case—can guard against the existence of a possible concealed flaw in a steel axle. But the jury added a most important rider to the effect that the train might have been stopped sooner had there been means of communication from the passengers in the injured carriage to the engine-driver. This is a subject which the Board of Trade ought to take up in the most decisive manner. Not only ought all carriages in a train to have a means of warning and communication, but it ought to be something much more workmanlike and accessible than the outside communication cord, which is difficult to get at, and on occasions when it has been really wanted has been found not to act or not to secure any attention. One is

really amazed at the supine manner in which the Board of Trade allow the railway companies to go on shilly-shalling about a matter which seriously concerns the safety of the public. The fear that a too ready means of communication would be abused is not a sufficient excuse. Two or three solid and substantial fines inflicted for wanton use of the communication would soon put a stop to that.

What is a Scaffolding?

THE recent case of "Veazey *v.* Chattle," reported in the Law Reports for this month, far from simplifying this question under the Workmen's Compensation Act, has only created greater doubt. The majority of the Court of Appeal in this case have now held a "crawling-board," *i.e.*, a board with strips of wood nailed across it and which hooks on to a roof ridge, to be a scaffolding. The Master of the Rolls considered the case of "Wood *v.* Walsh," which decided that a ladder was not a scaffolding, over-ruled by the House of Lords in their decision in "Hoddinott *v.* Newton Chambers." Lord Justice Mathew considered this crawling-board not a ladder, intimating that if it had been he would have followed "Wood *v.* Walsh," whilst Lord Justice Stirling considered it a kind of ladder, and, therefore, not a scaffolding. This divergence of opinion on a point of such importance is very unfortunate, and seeing that the House of Lords laid down that the word "scaffolding" must be construed in the common acceptance of the word, as only including anything which could properly be called a scaffolding, we submit it should not be applied to a well-known article complete in itself, such as a ladder or crawling-board, but implies some combination or erection constructed out of such materials as planks, poles, trestles, &c., and to construe the word otherwise can never lead to that finality of decision which the House of Lords laid down was the object especially to be attained.

Tramways.

THE London County Council's Tramway Bill passed the second reading in the House of Commons last week. An instruction to the Select Committee to exclude from the Bill the line from Blackfriars Bridge to Westminster was defeated, and thus after many struggles the House of Commons has at last given permission for a tramway on the Embankment. Considering how regardless Parliament has been of æsthetic considerations in such matters, for example, as the erection of the Public Offices, it was ludicrous for it to endeavour to defeat the Council's scheme on the ground that it would injure the appearance of the Embankment. If this tramway is constructed and gets into working order, it is quite probable that it will lead to the enlargement of the system in the West End of London. Its superiority over omnibuses and underground railways, and the great convenience to the mass of the inhabitants, can scarcely fai lead to a demand for its enlargement. could well be continued to Victoria Station, and a branch could conveniently be run up Whitehall to Trafalgar-square; and at any rate the people of London would have the satisfaction of knowing that any profit obtained from it went into the ratepayers' pocket and not into those of American millionaires, as appears likely to be the case with the underground railways.

The Timber Resources of Australia.

ON Wednesday evening last a paper on "The Timber Resources of the Australian Commonwealth" was read before the Society of Arts by Mr. Edward T. Scammell. After briefly describing the principal commercial timbers of Australia, and enumerating their respective uses, Mr. Scammell discussed the methods which he thinks should be adopted to increase and improve the export trade to this country. While recognising that the freight charges must necessarily be heavy in view of the great distance of Australia from Great Britain, Mr. Scammell considers that much may be done in the immediate future to lessen the cost of transport. He says that much harm has been done by the introduction into England of Australian timber which has not been properly selected or seasoned, and in some cases a prejudice has in consequence been created against these timbers which it is difficult to overcome. Mr. Scammell advocates the establishment of a bureau in the City of London where the colonial timbers may be viewed, and where full reliable information relating to their properties and prices may be obtained. We think Mr. Scammell is right when he says that such a bureau in the City would be of much greater commercial utility than a similar establishment at the Imperial Institute. He concluded with an appeal for a systematic consideration of the forestry of the British Empire as a whole, with a view to better conservation and a more intelligent utilisation of our great timber resources. The paper evoked a long and interesting discussion. It was generally agreed that greater care is necessary in the selection and preparation of timber exported to this country, and that the exceptional expansion and contraction of some of the Australian timbers greatly detracts from their practical utility. While, moreover, such timbers as Jarrah and Kauri are likely to prove of great value to Great Britain for special purposes, such as road-paving, there is no immediate prospect of Australian timbers in general replacing those of North America or the Baltic in the British markets.

Highly Superheated Steam.

MR. PENN drew attention to the advantages of superheated steam for marine engines as long ago as the year 1859, but at an early period in the history of superheating it was found that injury resulted if the temperature of steam were raised beyond 400-500 deg. Fahr. Superheaters were practically abandoned about 1870, when steam at higher pressure began to be used and compound engines were generally adopted. These developments enabled economies to be secured more easily than by the employment of low-pressure superheated steam in simple engines. In the present day the limit of efficiency with saturated steam is virtually reached, and engineers are once more taking up the practice of superheating. The Schmidt system is one permitting the use of steam at temperatures over 700 deg. Fahr., and some remarkably satisfactory results have been achieved by its aid on the Continent and in this country. From a Report made last month by Professor J. A. Ewing on some trials of a small triple-expansion engine at Erith, it appears that the steam consumption per kilowatt was reduced to 18·3 lbs. per hour, or 11·4 lbs. per indicated horse-power. As Professor Ewing remarks, this is a particularly satisfactory result in view of the small size of the engine, and of the fact that the boiler imposed a pressure limit of 130 lbs., which was too low to exhibit the full advantage of triple-expansion, or to economically develop the full power of the engine.

Steam Distribution.

OWING to the exigencies of modern hospital and workhouse design, it is often necessary for architects to consider how steam may most suitably be provided in the various isolated buildings of one institution for heating and other purposes. Owing to the large area covered, it is sometimes doubted whether steam can be economically distributed from a central station, while the differences of level often seem to place obstacles in the way of returning water of condensation to the boiler-house. There are many hospitals, well-known to our readers, where central heating stations are in thoroughly satisfactory operation, but nowhere in this country has the distribution of steam been attempted on the gigantic scale exemplified in the United States by the supply of steam to whole cities for industrial and domestic purposes. A smaller but not less interesting plant is to be found on Randall's Island, in the East River, New York. On this site there are sixteen buildings affording shelter for persons who through mental or bodily infirmity are incapable of self support. Quite lately a new central steam heating plant has been installed to replace former separate installations, and to provide for recent additions. The buildings cover an area of something like 23 acres, and some of them are situated on ground too low to permit water of condensation to return by gravity to the boiler-house. A noteworthy feature of the new plant is the adoption of the Paul vacuum system, by which water of condensation is returned to the boiler-house from buildings where gravity furnishes no aid. Some idea of the magnitude of this installation may be gathered from the statement that 30,000 square feet of radiator surface are served by the steam mains, in addition to laundry and cooking appliances and heaters for hot-water supplies.

A Building Site near London.

IN the course of next month will be offered for sale at the Mart about 600 acres of freehold building land, distant eight or nine miles from London. The various properties comprise the Grovelands estate of 300 acres at Winchmore Hill and Southgate, Old Park, 135 acres, at Palmer's Green, with others in the neighbourhood, and lie upon the southern fringe of the old Enfield Chase. A road from Southgate, where stood one of the gates of the Chase, skirts for about two miles Grovelands Park, and then a footpath through a wood on the left hand takes one to Winchmore Hill. The house at Grovelands (consisting of two floors and an attic story) was built in 1797 after John Nash's designs. In vol. i. of George Richardson's "New Vitruvius Britannicus," 1802, are views of the north and east fronts, and two plans of the ground and first floors, dated March 30, 1799, of the house, at that time the seat of Mr. Walker Gray. The east elevation has an Ionic recessed portico between two side

bays; on the north front is a projecting Ionic portico. In the east side, on the ground floor, are the breakfast parlour and "eating-room," the doors through which into the drawing-room command the window in that room and the prospect beyond. The doors from the drawing-room and library, in the south side, were made to be opened into the jambs, so as to form one apartment upon occasion; and by folding back into recesses some of the bookcases the library and the conservatory could be thrown into one also. The house stands in a grove of trees planted about the lawn, the ground falling towards a large lake, on the remoter margin of which is a coppice wood. Old Park constitutes a portion of the former Frith or Home Park, which, as surveyed in 1650 extended over 553 acres, whereof 100 acres of the best land were then valued at 17s. per acre; in the days of the Commonwealth it furnished 400 oak trees for uses of the navy. Around part of the lawn before the house, rebuilt early in the eighteenth century, are the remains of ancient earthworks, reputedly of Roman origin. The Home Park appertained to Enfield manor-house, the Palace that Edward VI. built for his sister the Princess Elizabeth, most of which was pulled down in 1792. It was bestowed, together with the hop garden (since a farm), upon George Monk, Duke of Albemarle, in 1660; after the death of Christopher, the second Duke, it passed by escheat to the Crown; then the property, having been meanwhile mostly disparked and converted for tillage, was granted by William III. to William Bentinck, first Earl of Portland. It has latterly been owned by the Clayton and Ford families.

The Church Crafts League.

IN two rather out-of-the-way rooms in the Church House at Westminster the Church Crafts League has got together a small but interesting exhibition of work by various artists intended for church decoration. "To set real artists to work upon our churches" is the object for which the Church Crafts League exists; in other words, to get church decoration and furniture out of the hands of the trade ecclesiological dealers. With this aim we are entirely in sympathy; but on the other hand, in the work of artists here exhibited there is perhaps, in some cases, a little too much of eccentricity, or at all events want of repose. Mr. Phillips's "Altar Front," for instance, which comes first in the catalogue, though the front panels are very well treated, is much too ragged and realistic in the carving of the uprights. Mr. Nelson Dawson's lectern eagle is a powerful thing, but here again the stand, though characteristically treated, has a little too much the aspect of mere blacksmith's work, and this over-acted simplicity appears again in his candelabra (21); they are what is called "honest work," but are mean and meagre for a church; and his candlesticks of forged iron (18), good as design, have the bad fault of not standing steady. Among things which belong to the region of a more finished and dignified art are Mr. Goscombe John's low-relief memorial to the late Canon Guy; Mr. Stirling Lee's bas-relief triptych, "Worship Within the Veil"; Mr. Taubman's child angel, forming a portion of a monument—a little kneeling figure with her wings decoratively overlaying the two sides of a pedestal behind; and Miss Rope's charming coloured relief, "Adoration by Children," designed for the chapel of a Children's Hospital; a work which may instructively compared with the commonplace coloured panels of "The Crucifixion" and "The Agony" on the opposite wall, which can certainly hardly raise one's religious feelings higher. Mr. D. G. Walker exhibits a coloured model of his mosaic decoration of the dome of the Greek church at Bayswater, a design which we illustrated in monochrome some time back. Among smaller things we were interested by some specimens of very delicate and artistic embroidery for church purposes by Miss Moira, and by some photographs of metal-work by Mr. Robert Hilton, and of frescoes, &c., by Miss Maude Berry; the decorative painting of Christ and the Baptist by the last-named lady, judging by the photograph, is finely and effectively treated. A photograph of a memorial cross at Braughing, Suffolk, by Mr. John S. Lee, shows what appears to be a picturesque and original treatment of this class of object. There is a small but interesting loan collection of ancient church vestments, plate &c. We may remark that on the day when the Press were specially invited to inspect the collection the numbering and arrangement of the specimens was not complete, which is very inconvenient, as one may wish to comment on an object and be thus unable to identify it.

LETTER FROM PARIS.

THE Société des Amis des Monuments Parisiens have held a special meeting to consider the question of the new lines of boulevards and streets which will very shortly occupy the ground to be left vacant by the suppression of a large portion of the fortifications of Paris. An interesting paper on the æsthetic conditions of the new quarters to be raised between the Porte Maillot and the Porte d'Auteuil, on the site of the fortifications, was read by M. Charles Normand.

A competition is opened between architects for designs for the reconstruction of the Museum of Painting and Sculpture at Nimes.

The Paris Municipal Council has just leased, for a term of ninety-nine years, a large piece of ground on the Boulevard Raspail to the Société de l'Ecole Spéciale d'Architecture, for the purpose of erecting thereon the new important special school for the teaching of architecture.

The newly-formed association of the "Nouveau Paris," which consists of a group of young members of the architectural profession, whose ideas are entirely given up to the culture of modern architecture and the breaking away from all old or classical traditions, has just held its first meeting. Committees were appointed to examine the questions of the transformation of the Champ de Mars, the stations of the new metropolitan railways, the aspect of the boulevards, the suppression of the fortifications, and the proposed competition for business sign-boards and shop-fronts. This society will in most cases be in direct opposition to that of the Amis des Monuments Parisiens, and some interesting discussions will probably ensue.

The Académie des Beaux-Arts, at its last sitting, presided over by M. Jean Paul Laurens, awarded the Prix Duc, of a value of 150*l*., destined to encourage the study of the higher sphere of architecture, to M. Albert Guilbert, for his monument raised to the memory of the victims of the ill-fated Bazar de la Charité, which won for its author the medal of honour in architecture at the Salon of 1900.

A Parisian engineer, M. Casalonga, has submitted to the Société des Ingénieurs Civils de France his scheme for an underground moving platform, which he proposes to install between the Place de la Concorde and the Place de la Bastille, with a return line. The depth at which this line will be placed is much less than that of the metropolitan railways, and will avoid the necessity and the delay of deep staircases for access. The work is estimated at 25,000,000 fr., and this first line will form a portion of a series of lines 30 miles long.

To the loss which the architectural world of Paris has sustained by the death of M. Coquart we have already referred under the head of "Obituary" in our issue of April 19.

The first prize for the annual Chenevard competition at the Ecole des Beaux-Arts was awarded to M. Prevot (pupil of MM. Guadet and Paulin, for his designs for a "Café-Restaurant Concert Populaire," and to M. Jaussely (pupil of MM. Daumet and Esquié), for his design for a "Place du Peuple," both of these students sharing the honour of the first prize this year.

The *Journal Officiel* publishes the decree authorising the reconstruction of the Imprimerie Nationale in the Rue de la Convention, at a cost of 2,920,000 fr., and the assignment of the buildings and ground in the Rue Vieille-du-Temple, now occupied by this service, to the profit of the Treasury.

The work of excavation just completed for the foundations of the two additional wings to the Bourse at Paris has brought to light a large number of interesting objects of Roman and later art, of bronze and faïence. These will be placed in one of the museums devoted to collections of antiquities discovered at Paris.

The question of the dangers of public and private lifts is now being carefully considered at Paris, and the Minister of the Interior has appointed a special committee of engineers to go into the matter thoroughly.

M. Muntz, member of the Académie des Inscriptions et Belles-Lettres, has submitted an interesting study of the history of the monumental frescoes which adorn the architecture of the Palais des Papes at Avignon. All this work belongs to the fourteenth century, and is due to Italian artists and one or two French artists under Italian inspiration. M. Muntz insists on the desirability of appointing some of the best draughtsmen attached to the service of the Monuments Historiques for the purpose of making exact and skilful copies of the most interesting of these remains.

The inauguration of the exhibition of the artistic and archæological collections coming from the excavations made at Susa by M. de Morgan takes place on May 1 in the Grand Palais des Beaux-Arts. The exhibition will comprise the whole of the results of the excavations, and the objects will be accompanied by maps and sketches made by M. de Morgan on the spot during the work.

A large sum has been voted for the purpose of repairing all the old churches of Paris. With the exception of the work of restoring large portions of the Church of St. Eustache, very little has been done to any of the other churches, but the repair of the churches of St. Gervais, the Madeleine, St. Severin, St. Bernard, St. Augustin, and St. Germain des Prés will be put into hand at once. The work of repairing the façade of the Church of St. Sulpice has been in hand some time already.

The case of the "Tout à l'égout," in which 125 house-owners are summoned for not complying with the recent law enjoining all house-owners to install the water-carriage system in their houses and connect with the sewers, has now come up before the ordinary police-court, with the result that each one of the delinquents has been condemned to pay a fine of one franc, and to proceed at once to execute the work required by the law.

The increase of the statue mania at Paris is receiving the urgent attention of the Commission du Vieux Paris, and it has been decided to request the Prefect of the Seine to take measures to curb as much as possible the enthusiasm of those whose desire is to see every square and public place at Paris adorned with busts or statues, which, in many cases, are of little artistic beauty and often tend to spoil the effect of the open space instead of enhancing it. The Prefect has decided that in future the Commission du Vieux Paris must be consulted on the choice of the sites proposed for the erection of monuments or statues.

A number of new rooms destined specially to the art of the eighteenth century have been opened in the Palace at Versailles. The decoration of these rooms has been carefully restored, and reconstitutes the charming style of the old apartments of the Dauphin, son of Louis XV., a decoration very much spoiled by Louis Philippe when he arranged his collection of portraits. The work of restoration and installation has occupied three years, and great credit is due to M. de Nolhac, the

curator, for the careful and artistic manner in which the rooms have been arranged and installed to receive the paintings and noted portraits of the eighteenth century. The contents include pictures by Rigaud, Largillière, Coypel, Nattier, Drouais, Boucher, Vigée Lebrun, and other eminent eighteenth-century painters, and sculptures by Houdon, Coysevox, Coustou, &c.

The foundation-stone of the new wings to the Bourse at Paris will very shortly be laid with a certain degree of ceremony. The foundation-stone will contain a casket enclosing a plan, engraved on copper, of the Palais de la Bourse in its completed state, the minutes of the ceremony, some specimens of the money of this year, and a medal engraved by M. Roty.

It is proposed to construct at Paris an establishment to be entitled the American National Institute, destined as a centre for young American artists. The Senate at Washington has under consideration a demand for a credit not to exceed 250,000 dols. for the erection of the suggested Institute. The building would be raised on a piece of ground to be granted by the Paris Municipal Council on the condition that the establishment should pay for its own maintenance. The building would be erected under the supervision of the United States Government.

It is fortunate that the completion of the work on which Dalou was engaged at the time of his death—the Gambetta monument for Bordeaux—was provided for by the great sculptor, who, feeling that he could not live to complete it, had appointed M. Camille Lefèvre to carry it out as sculptor, in conjunction with M. Formigé as architect.

Three new monuments are spoken of in Paris; one to Jules Simon, for which political influence has secured a position on the Place de la Madeleine, where it will take the place of one of Davioud's fountains; an unfortunate decision. It would have been much better if the wish of the Administration had been adopted, to erect the monument on the open space at the entry of the Boulevard Malesherbes. The second monument referred to, which has just been completed by M. Injalbert, is one to Auguste Comte, to be erected on the Place de la Sorbonne, a selection of site which has also been much criticised, since it is not thought that the style of the monument will harmonise at all with the building erected under Richelieu; and it is fortunate that in future the Committee of "Vieux Paris" will be consulted in regard to this question of thrusting new monuments into sites in connexion with ancient buildings; for this Committee has the power to make its influence felt by the Government. The third monument is one designed by M. Lenoir in memory of the composer César Franck, and is to stand in a gothic arch in the square in front of the church of Ste. Clothilde, where Franck was organist for many years. About this monument to an artist there are, fortunately, no political or other disputes.

M. Recipion is just completing the model for a great piece of sculptural decoration intended for the Panthéon, to symbolise the "Autel de la Patrie." This monument is to be something over 40 ft. high. On the plinth, adorned with a frieze of foliage, is the shaft of a column against which is placed a seat of antique form; in its centre is represented "Le Livre de la Loi." Beneath are grouped a Gaul warrior, an artisan, a labourer, and other personages symbolising "La Famille." To right and left are figures personifying Energy, Genius, Labour, &c.; and crowning the composition an imposing figure of "La Patrie" upright upon the column. The general appearance is sufficiently decorative, though rather heavy. M. Recipion is a sculptor who has done some good work in the decoration of the Grand Palais and the Pont Alexandre III, but he is perhaps hardly equal to making the best of a monument of this kind, for which one wanted a Dalou or a Falguière.

A new work by M. Frémiet has just been completed for America—the equestrian statue of Colonel Howard, who distinguished himself in the American War of Independence. It is intended for a site in Baltimore.

Surprise has been expressed that the Department of Fine Arts has delayed for two years to settle the question of the disposal of the fine models of various historical monuments which are for the present deposited at the Trocadéro. These were made under the direction of M. Baudot, Inspecteur-Général des Monuments Diocesains, and were specially designed to illustrate the use of the materials of construction in ancient buildings; they are therefore interesting in a double sense, artistic and technical. Among them are models of the staircase of the Château of Blois; the buttresses of Saint Urbain, Troyes; of Saint Pierre, Beauvais; and of the apse of Nôtre Dame, Puy. The architectural museum of the Trocadéro would seem to be their proper destination.

During the Parliamentary vacancy the refreshment-room of the House is being decorated under the direction of M. Bucquet, architect to the Palais Bourbon. It is now adorned with some splendid panels in grey stoneware, executed at Sèvres, and representing the Four Seasons. The design is by M. Constant Roux. The Municipality of Paris is following suit in decorating the refreshment-room at the Hôtel de Ville, for which M. Forain has submitted a series of sketches of Parisian scenes, the principal one representing a group of men before a tavern at Montmartre, with the panorama of Paris before them. This decoration is to replace the two curious compositions by Chifflard, "Faust au Sabbat," and "Faust au Combat," which will be removed to the Petit Palais.

The decoration of the Hôtel de Ville is at last on the way to be completed. Mr. Joseph Blanc is putting the finishing touches to a cupola ceiling representing "Les Mois du Calendrier Republicain;" M. Olivier Merson is completing his important decoration on the grand staircase; and M. François Flameng is at work on the figure representing "Music," which had been originally commissioned from M. Ranvier. After the closing of the Salons, the two large pictures by M. Detaille, to be first exhibited at the Old Salon, will be fixed in position. This will complete the great work of decoration of the Hôtel de Ville, commenced thirteen years ago, and which, though it is certainly sadly wanting in unity of style and conception, nevertheless remains a remarkable monument of contemporary French art.

PICTURES AT THE NEW GALLERY.

No very great expectations had been formed in regard to this year's show of pictures at the New Gallery, but on the whole there is more of interest than we anticipated, and at all events there is one work of the first order of artistic power — Mr. Sargent's portrait group of "Children of A. Wertheimer, Esq." (251), at the top of the north room. This is a group of three young people, a boy and two girls, admirably composed, the two figures nearest the foreground being grouped with a "pouf" covered with light-coloured material, which has an important effect in the balance of the picture and in throwing back the background. A sumptuously-maned black poodle in the foreground, whose coat makes an effective contrast with the red sleeves of the girl next him, is also a very important element in the effect. We have seen more interesting pictures by Mr. Sargent, but none painted with more breadth and mastery than this, though unfortunately, as we not infrequently find in his works, the hands are rather neglected and carelessly painted.

Mr. G. F. Watts's large picture, "Love Steering the Boat of Humanity" (149), in the west room, shows the very opposite extreme in the uses of painting; Mr. Sargent representing the realism of everyday life (though not by any means sinking to mere realism in execution), and Mr. Watts the use of painting to convey abstract ideas. In this kind of moral aim in painting Mr. Watts has sometimes too much lost sight of pictorial and decorative effect; the present work, however, is a fine and effective picture independent of its moral; powerful and rich in colour, though a little confused in line and composition, and perhaps also in regard to *motif*. Apparently the sail in the boat of Life has come to grief, and the passenger is taking to his sculls, which, owing to a little carelessness in perspective, seem very short for their purpose. Mr. Watts has done finer things than this; but it is not a picture to pass over.

In the south room, where the numbers commence, a special feature has been made by the collocation of a dozen pictures painted in tempera; most or all of them being of that modern archaic school in which the spirit and treatment of early Italian art is revived. Though not feeling in a general way very much sympathy with this archaic school, such attempts have their interest in an artistic sense; several of them here are of much beauty and delicacy of design and execution; and tempera is a medium which lends itself very well to this kind of comparatively flat and shadowless treatment. The largest of these works is Mr. Walter Crane's "The Wind in the Tree" (7), in which the four winds are represented by floating figures in variously-coloured draperies, blowing through that early Renaissance form of wind instrument which we remember seeing in use also by the personages who enacted the Winds in that celebrated masque at the Guildhall some two or three years ago. The work forms a fine panel in a decorative sense, though its interest is rather superficial than intellectual. Mr. Batten's "Danaë" (3) is a very mediæval Danaë, harmless and tame in comparison with such a voluptuous figure as that of Titian for instance; but it is nevertheless a delicate and beautiful little work. A larger picture of the same class, Mr. Southall's "St. Dorothea and her Sisters refusing to Worship the Idol" (9) is also of considerable interest in its peculiar and conventional fashion.

On the opposite wall of the same room we are confronted by a large picture of Mr. Brangwyn's, "The Cider Press" (58), which takes us into an opposite world of art from these *primitifs;* a composition of crowded and energetic figures engaged in rustic labour, and painted with the greatest dash and freedom of execution (almost to the extent of coarseness), and in the strongest and most powerful colours. It is a remarkable picture; whether one altogether likes it or not may be a question, but at all events it is neither weak nor commonplace. A picture about which there can be no doubt at all is the portrait of Professor Liveing by Sir George Reid (57), an artist who is now at the height of his powers, and who takes rank as one of the most impressive of contemporary portrait painters. Mr. W. Wontner's picture of a young girl in an oriental costume seated by a fountain (81), with two lines of verse as a title, is a very good example of the style of picture in which superficial prettiness and high finish are the objects aimed at; of its class it is a very good specimen, a piece of very highly finished execution in a rather hard manner. Among the other noticeable pictures in this room (excluding landscapes) is Mr. Khnopff's curious performance, "The Secret" (35); the upper portion an interior where a woman is parleying with a mask stuck up on a pole, the lower portion a view of some mediæval buildings reflected in water; what is the meaning of the interior scene, and what its connexion with the lower view, is a riddle to which no solution is afforded. Mr. A. Foord Hughes's "Perdita and her Playmates" (47), landscape and figures, is a clever work in a rather curious and conventional style.

In the west room are not many things that will stay the visitor on his round. M. Benjamin-Constant's head of "Salomé" (196) is a somewhat theatrical study. There are two clever sketch portraits on a large scale, that of two children of Mr. R. Brough (161), and that of a young girl by Mr. J. J. Shannon (178). Mr. Wetherbee gives us one of his combinations of nude figures with landscape in "Halcyon Days" (144), a seashore scene with bathers, not equal in poetic suggestiveness to most of his works; and Mr. Herbert Draper has a very clever study of night effect in "Midsummer Night" (115), with Puck holding colloquy with some hares in the foreground. A picture quite out of the common way is Miss Fortescue-Brickdale's "The Pilgrim" (142), a charming family scene in the interior of a humble home; the title does not quite explain itself, but we presume it refers to the sad-looking man in the background, the wayfarer guest who contemplates social joys which are not his. At all events, it is a work of marked character and originality.

In the north room Mr. Austen Brown's "Haymakers" (222) is a life-size study of two rustics, man and woman, half hidden under a load of grass which one of them carries; a *genre* picture on a large scale and in a broad style of execution which gives distinction and interest to it; but was it worth doing on this scale? There are some dreadfully commonplace things, and on a large scale, too, in this room. Among the exceptions are Mr. Melton Fisher's dignified portrait of "Lady Orr-Ewing" (262) in a crimson dress and with the head powerfully and broadly painted; and Sir W. Richmond's refined and effective portrait of Mrs. Clinton Dawkins (280). Mr.

Sargent's large picture of a young man "On his Holidays" (297) resting in the middle of a glacier, looks as if it were sent in as a joke, or to see how much the public will swallow; it is absolutely devoid of interest or pictorial character.

There are a few good landscapes; among them a beautiful little work by Mr. Adrian Stokes, "Wild Cherry Trees" (73) growing on the side of a hill which makes the horizon to the picture, with lumps of fleecy cloud floating in the sky beyond; a perfectly artistic work in landscape. Mr. R. W. Allan's larger work in the north room, "Far off Among the Hills" (276), a picture differing from anything we have seen from him before, is one of the best landscapes exhibited, remarkable for the force with which the foreground is painted, and the fine suggestive treatment of the distance. In "Desolation" (265), a marshy scene by the sea, with a setting sun, Mr. Ivystan Hetherington has produced a landscape marked by individual character and poetic feeling, and Mr. Alfred East's "A Morning Song" (230) is a large landscape sketch, rather than a finished picture, distinguished by fine colour and composition.

The Central Hall is occupied by Mr. G. H. Hodgson's collection of works of Japanese art, a portion of the exhibition which is on so different a footing from the pictures that we prefer to notice it separately on another occasion, especially as the catalogue is not yet available.

THE ARCHITECTURAL ASSOCIATION.

AN ordinary fortnightly meeting of the Architectural Association was held on Friday evening last week, in the Meeting-room of the Royal Institute of British Architects, No. 9, Conduit-street, W. Mr. G. B. Carvill, Vice-President, occupied the chair in the absence of the President, Mr. W. H. Seth-Smith.

The minutes and some nominations having been read, Mr. H. A. Hall was elected a member, and it was announced that Mr. C. Harrison Townsend had rejoined the Association.

On the motion of Mr. H. P. G. Maule, hon. secretary, a vote of thanks was accorded to Mr. John Belcher, A.R.A., for allowing a party of members to visit the Eastern Telegraph Co.'s offices on the 12th ult.

New Premises Fund.

The Chairman announced the following additions to the New Premises Fund, *i.e.*:—Messrs. W. H. Lever, 25*l.*; John Murray, 10*l.* 10s.; W. Henry White, 10*l.* 10s.; C. de Gruchy, 5*l.* 5s.; H. E. Rider, 5*l.* 5s.; L. Jacob, 3*l.* 3s.; E. J. Stubbs, 2*l.* 2s.; F. R. Taylor, 2*l.* 2s.; A. C. Dickie, 1*l.* 1s.; T. T. G. Donaldson Selby, 1*l.* 1s.; V. A. Flower, 1*l.* 1s.; A. T. Griffith, 1*l.*; H. W. H. Palmer, 1*l.* 1s.; W. M. Paton, 1*l.* 1s.; H. C. Trimnell, 1*l.* 1s.; Horace White, 1*l.* 1s.; C. H. Strange, 1*l.* 1s.; and G. Vernon, 1*l.* 1s. The total of the fund now amounts to 4,116*l.* 14s. 6d.

Members' Supper.

The Chairman announced that the members' supper would take place on May 2 at the Great Central Hotel, Marylebone-road. It was hoped that there would be a better attendance at the supper than there had been at recent annual dinners. He might point out to members of the Association that the little entertainments of the Association were organised for the benefit of the whole body of members and not for the few, and it was not very encouraging to those who gave up their time organising the entertainments if they were badly supported. He did not see how members could disassociate themselves from the entertainments, which were part of the curriculum, and he hoped that the supper and the forthcoming *soirée* would be well supported.

Mr. R. S. Balfour, hon. secretary, announced the following donations to the library:—"The Jain Stûpa and Other Antiquities of Mathurâ," by V. A. Smith; Moghul Colour Decoration of Agra," by E. W. Smith, M.R.A.S.; presented by the India Office. A vote of thanks was passed to the donors.

Nomination of Officers.

The Chairman then read the names of those gentlemen nominated by the Committee as officers for session 1902-03. The list of names was printed in our issue for the 19th ult. The Chairman stated that the following additional nominations had been received, *i.e.*, Messrs. H. D. Wilkinson and John Murray.

The following gentlemen were then elected as scrutineers, *i.e.*, Messrs. H. G. Collins, E. W. M. Wonnacott, A. A. Carder, and G. H. Smith.

Arbitrations.

The Chairman then called on Mr. E. A. Grüning to read the following paper on "Arbitrations":—

Mr. President and Gentlemen,—

I have had the honour of being invited by your Committee to read a paper on Arbitrations. This I do willingly, but others have written books and read papers on this subject generally, and I therefore propose to speak simply on arbitrations from the architect's point of view, and to confine myself entirely to such as may occur in the ordinary practice of an architect. I propose also not to go too deeply into the question of precedents, or of law. In fact, as far as possible, to base my remarks on the knowledge I have personally gained in active practice.

Arbitration was really the earliest species of law. In primeval times the king or head of a tribe was the arbitrator, both in civil and criminal cases. True, he had extraordinary powers, which his successors at the present day do not possess, though sometimes I cannot help thinking it would be a mercy if they did, and were able, in the same way and by the same means, to shorten cases which are otherwise very protracted. In course of time, law superseded arbitration, but a reaction set in, by which arbitration has become more than formerly a recognised means of settling disputes, being now invested with legal powers, which until recently did not exist.

Although many arbitrations had taken place under agreements, the beginning of this change arose with the legislation of the Law Procedure Act of 1854. But the Arbitration Act of 1889 did more than anything to put arbitrations on a proper basis, and to invest them with a dignity and importance which till then they had not possessed. Without going into the detailed provisions of this Act, it may be said that the arbitrator has all the powers of a judge of the High Court, except the power of committal to prison for contempt of court. His proceedings are as strictly defined as those of the courts, and he cannot be deposed except for misconduct or corruption. I have said that I purpose to avoid going into the details of legal decisions and appeals, but I may mention some who have written and spoken on the subject, and on such points as this I should refer you to a most able paper, written by Mr. Strahan, and read at the Royal Institute of British Architects in January, 1895; to an able article in the *Builder* of August 17, 1901; and to the following more elaborate text-books:—"The Law Relating to Civil Engineers, Architects, and Contractors," by Macassey and Strahan; also Russell on "Arbitrations and Awards."

The object of arbitration is, or should be, to simplify the decision of disputes. The arbitrator should be an expert in the matter which he has to decide, the object being to avoid waste of time in informing him of the customs of professions and trades, and bringing evidence necessary to prove such matters, which he should, of his own knowledge, be able to decide upon without any such evidence. Arbitrations, too, should not, if before a lay arbitrator, be allowed to involve questions of law. These, if they do arise, are better dealt with direct by the proper courts, though I shall afterwards show how an arbitrator can deal with them in case of need.

There are three classes of arbitration—first, with two arbitrators and an umpire, the decision of the umpire alone being final; secondly, where the decision of the umpire in conjunction with one of the arbitrators is necessary; thirdly, where there is a sole arbitrator. With regard to the first, excepting the cases to which we shall refer hereafter, it is desirable to avoid having two arbitrators and an umpire, unless the arbitrators conduct the case on behalf of their respective clients. This is not so if counsel or solicitors are employed, and in such a case the two arbitrators merely sitting with the umpire, are practically more ornamental than useful. Under the second head, there is only one class of arbitration, namely, that of party walls, under the Metropolitan Building Act of 1894. Here it is necessary that two of the three surveyors should sign the award. Under the third head, where there is a sole arbitrator, this is, in many respects, the best method of arriving at a rapid decision on the points in dispute.

The matters which come to the arbitration of an architect or surveyor—and I use the word surveyor in the sense in which Sir Christopher Wren was surveyor to the fabric of St. Paul's, a title which has been held by his distinguished successors to the present day—can be classed as follows:—

Party walls under the London Building Act of 1894.

Dangerous structures.

Questions arising out of the various factory Acts and amendments thereto.

Questions relating to light and air.

Building contracts.

Dilapidations.

Professional questions between architect and client; and

Compensation cases. Under this head would be included insurance claims.

With regard to the party-wall question, under the London Building Act, 1894, this is really the most frequent of disputes arising in our practice. The method of dealing with it is very carefully set out in Section 8, and I need hardly here waste time in describing the nature of the procedure. It amounts to this, that an arbitrator, or surveyor, is appointed by the building owner, and another by the adjoining owner, and if these two gentlemen cannot agree on the merits of the case, they must agree to refer the matter to the umpire, technically known as the third surveyor. On his undertaking the reference, the procedure usually begins with a visit to and careful inspection of the structure in question, which, under the existing Act, may also include party fence walls, the Act of 1855 not referring to these. A consultation then generally follows as to the nature of the award, witnesses being seldom or never called. The third surveyor then drafts the award, sending a copy of the draft to each of the others, and having, if necessary, a further meeting in which the terms of this award are finally discussed. It is necessary that the award should be signed by two out of the three surveyors; but, as a matter of fact, the decision really is that of the third surveyor alone, as the building owner's surveyor, in order to proceed with his work, is practically bound to adopt his decision. And here I ought to mention one difference between this species of award and any other. As a rule, the arbitrator or umpire is both judge and jury, and questions of fact determined by him cannot be re-argued or opened up again, but under the clauses allowing for appeal to the County Court, and from that to the superior courts, against an award, it is possible to open up the whole case from the beginning, even to a recapitulation of the evidence (if any) and arguments originally placed before the third surveyor, and even to offer fresh evidence. Here we find that the above-quoted Act has materially increased the difficulties of the surveyors in dealing with party or party-fence structures. All former building Acts made no mention of compensation to the adjoining owner for disturbance—in none of the former Acts was this mentioned—and the building-owner had the right of rebuilding if he could prove that this was necessary or advisable, even for his own purposes only, without regarding the convenience of his neighbour. The effect of this alteration in the law has been a bad one. The adjoining owner either wishes to keep his premises to himself for his own purposes, and without disturbance, in which case he fights strenuously to maintain the structure, which for reasons of public policy ought to be renewed, or he makes it a means of extortion, demanding an unreasonable and often imaginary amount of compensation. This very often increases the difficulties of the third surveyor, as he is naturally led to countenance the retention of party structures which would be better pulled down and rebuilt. In this case, as in others, I will give the form and nature of award later on.

With regard to the dangerous structures, this is a new form of arbitration, arising under the Act of 1894. Formerly all such cases were under the jurisdiction of and were tried at the police-court of the district. It is now open to any one conceiving himself aggrieved by the receipt of a dangerous structure notice to give notice under Part 9 of the Act, provided he does so within seven days, requiring the matter to be referred to arbitration, and Clause 107 of the Act prescribes the method in which this shall be done. It is practically a repetition of the procedure in party walls, with the exception that the award is signed by the arbitrator or umpire only. In this case, if the owner of

the alleged dangerous structure does not demand within seven days after service of the notice the appointment of an arbitrator, the matter reverts to the police-courts, as under the former Acts.

We now come to arbitrations on questions of light and air, by far the most difficult of any with which an architect or surveyor can be called on to deal. The state of the law on this subject could not be more unsatisfactory than it is, owing to the conflicting decisions of various Judges and the reversal of the judgments of the Court of first instance by the Courts of Appeal—notably in recent cases. Efforts are being made to obtain a revision of the law as to easements of this class by a joint Special Committee appointed by the Royal Institute of British Architects and the Surveyors' Institution, with the assistance of two eminent King's Counsel. A Bill will be introduced into Parliament, we hope, in the current session, and I think every one will wish it success in simplifying matters of such great complication and difficulty. The main principles of the proposed Bill are settlement by arbitration, the proceedings being similar to those under the Factory Act; the elimination of extravagant claims for special uses of ancient lights; the extinction of claims of this class in future buildings not already possessing ancient lights; and the simplification of means of objecting to such rights being acquired by the simple means of giving a statutory notice of objection instead of the present cumbrous and barbarous means of erecting and maintaining screens or other physical obstructions. Arbitrations under this head arise under different circumstances. The arbitrator or umpire may be appointed by agreement; he may be appointed by the Judge of the Court in which the case is tried, or he may be required simply to report to the Judge his independent opinion of the case. In this sense he is practically an arbitrator, inasmuch as the Judge would probably, and in nearly every case, give his judgment in accordance with such report, if confined strictly to questions of fact. The duties of the arbitrator here are very wide, and he can, and should, often do much to bring the parties together by suggesting a reasonable compromise, either by the modification of the defendant's proposed building, by reasonable compensation for the injury likely to be inflicted, or often successfully by suggesting an improvement to the plaintiff's building—of course, in the latter case to be carried out at the expense of the defendant.

The next class we have to deal with are dilapidations. These are more strictly matters of account. The repairing clauses in leases and agreements are often vague, and it is, therefore, often difficult to arrive at a decision. The arbitrator must determine on the items of claim which he intends to allow, and after that price them according to the best of his knowledge.

A more delicate question than that arising between architects and their clients cannot be conceived. Often these cases are painful to hear, and to decide; they usually take the shape of an alleged overcharge on the part of the architect, resisted by a counterclaim for his negligence, and damages arising therefrom. The procedure is the same as in other arbitrations, but in this—more than in any other class of cases—there is apt to be personal feeling and recrimination. In my own experience most such cases arise where the so-called architect is not a member of the Royal Institute of British Architects, but nevertheless attempts to use, and often to unduly interpret and strain to the utmost, the schedule of professional charges.

With compensation cases the architect has comparatively little to do. These claims generally arise with reference to properties taken under the authority of an Act of Parliament. They may arise as a consequence of damage caused by the construction of neighbouring buildings or works, both as regards structural damage and consequential injury; and there may be other causes of complaint. But, as a rule—and particularly as to compensation for compulsory purchase—these are left in the hands of surveyors or agents, pure and simple. I mean agents dealing with properties, and accustomed to assess the value of land, and the rental values of land and buildings. I am sorry to say that, with the occasional exception of the plaintiff's case in actions for injury to light and air, there is no class of arbitration or trial in which such exaggeration takes place as in compensation cases. This would seem to arise under the idea that a jury or an arbitrator would average the claims made against the counter offers. It appears often in these cases quite impossible to give conscientious evidence, as that would be of no use to the party represented. In fact, the witnesses too often consider that they are advocates rather than experts. A well-known judge once remarked that there were three classes of witnesses—the truthful, the perjurer, and the professional expert.

With regard to the duties of arbitrators and umpire. Should arbitrators be employed, their duty is to prepare each his own case: to boil it down and simplify it, so as to only produce the salient points of real importance at the hearing. I have already said that arbitration is intended to simplify the settlement of disputes, and I cannot too strongly advise anybody engaged in this class of practice to be most particular and most careful in preparing the case for his side, fully setting forth his case without bias or exaggeration. More than this: he should, if he can, endeavour to ascertain and to work out the opponent's case, so as to be ready to meet his opponent's arguments. He should have every drawing, every paper that he has to produce during the case, readily accessible and at hand, in order to avoid waste of time. In party wall cases, before the third surveyor is called in, accurate drawings should be made of the wall, both in plan, elevation, and section. The wall should be plumbed to ascertain how far, if at all, it is out of the upright; and the nature of the materials of which it is composed should be, as far as possible, ascertained. The surveyor to the building owner should also be prepared to state exactly what he really proposes to do, which cannot always be disclosed by the statutory party-wall notice, as this has to be given in advance, and it is not always possible at first to ascertain the exact circumstances of the case and condition of the structure in question.

Now, in speaking of the duties of arbitrators as such, where there is an umpire, I may as well say that under this head I include the duties of architects or surveyors who have to prepare their side of the case for hearing. In all of these cases the same care should be taken in preparation—no points should be overlooked, and the points likely to be raised by the opposite side should be foreseen. The two architects, whether acting as arbitrators or not, should before the hearing agree facts as far as they possibly can; they should verify each other's drawings. In cases of light and air they should prepare a model, to be jointly agreed upon by both parties, and they should do everything to avoid disputes as to fact at the hearing, so that time will not be wasted in producing a lot of evidence to prove anything which ought not to require proof at all.

With regard to the Factory Acts, arbitrations are a procedure of comparatively modern form. They arise out of the operation of the original Factory Act and of numerous amendments of such Act, and are confined to determining the necessary provision for means of escape in case of fire, and to certain sanitary arrangements, both of which appear formerly to have been much neglected. Many difficult cases arise, owing to practical considerations, and the necessity of obtaining rights of way or access to the premises of neighbouring owners. I must say that the London County Council, as the statutory authority, though gradually improving in this respect, sometimes render these matters very difficult to decide by incorporating in their notices requirements, conditions, and provisions with which it is absolutely impossible for the owners of property to comply. But that procedure of some sort was imminently necessary is quite clear. These questions bear very hardly on owners of property, who might in many respects be more leniently dealt with than they are at present. In this case, the presence of umpire and two arbitrators is necessary at the hearing. The parties may or may not be represented by solicitors or counsel. The decision, however, rests solely with the umpire. As in all other cases, there is an appeal to the Courts; but this appeal can only be on points of law and the validity of award, but not upon the facts as originally decided.

Troublesome matters are arbitrations arising out of builders' contracts. Here, again, much can be done to shorten a reference by agreeing beforehand to such items as possible, and also by agreeing in what order the claim and counterclaim, if any, should be taken, so that in case of need an interim decision may be given, shortening disputes only too likely to be prolonged. It is no unusual thing for the hearing of an arbitration on a building contract to last for any time from twenty to forty days, when anything that either party might have gained is completely swept away by costs. In these protracted cases nearly always personal feeling is introduced, which does not tend to promote a rapid settlement. Under the form of contract now in general use, the arbitration can only be opened after completion of the works, or when either party is dissatisfied with the architect's final certificate. But there are many cases in which much friction can be avoided and time saved by a hearing during progress of the works. The architect of a building must always remember that he is not only the agent of his client or employer. He must also during progress of the works as above mentioned hold the scales of justice between employer and contractor. Questions as to material and workmanship may arise which it is difficult to determine later on, when much of the constructive work has been covered up.

As to dilapidation arbitrations, I think I have already said nearly as much as I need. These rarely get into the Courts; they are generally settled by the surveyors on behalf of claimant and landlord, and tenant or defendant, an agreement being come to before negotiation as to the name of the third person, or umpire, whose decision shall be final. They are matters of little interest, rarely involving any special principle of law, but really only being a money dispute.

With regard to disputes between architects and clients, I think I need add no more to what I have already said. In compensation cases, the procedure is practically the same as in other arbitrations already noticed.

I have, therefore, so far, I think, defined the various methods of procedure, the duties of the umpire and arbitrators, including under the latter head the architects or surveyors employed to advise their respective clients.

We now come to the preparation of awards. The first duty of the arbitrator or umpire is to ascertain that he is properly and legally appointed, to receive and take into his possession the documents or agreements referring to such appointment, to ascertain generally the nature of the claim and counterclaim, if any, so as to avoid what I may call fishing claims, and to regulate the order in which the case shall be heard. The arbitrator or umpire may be appointed in various ways; he may be appointed by a judge of one of the High Courts; he may be appointed by agreement, or by some person to whom his nomination has been referred, such as the President of the Royal Institute of British Architects, or of the Surveyor's Institution; he may be the person specially nominated in a building contract as the arbitrator. The preliminary points being settled, he must proceed with the hearing, first arranging as to whether witnesses are to be sworn, and must show great patience in allowing all matters to be brought forward, and, at the same time, firmness in stopping irrelevant matter and personal recrimination. He sometimes may, in questions of light and air particularly, be able to make a suggestion which practically puts an end to the case, and it is his duty, whenever he can do so, to shorten the proceedings by means of proposing a fair compromise. He should avoid interfering in the conduct of the case, leaving each party to conduct his own case, and only speaking when it is necessary to give a decision on a point of procedure or to settle or define a doubtful answer. He should particularly avoid showing any leaning to either side, and should allow no expression of his opinion as to the merits of the case to escape him. In rare cases it may be necessary for him to give an interim decision, or to state a case for the opinion of a superior Court prior to proceeding further; for instance, he may have to decide in a disputed account whether or no there is a contract; but this should not be done unless absolutely necessary. At the conclusion of the hearing, having given both sides a fair and impartial opportunity of bringing forward evidence and statements, he should reserve his decision in order to read through the evidence and his own notes. These he should make himself, shortly, both of the arguments on either side as well as of the heads of the evidence. If shorthand notes are taken throughout the whole of the proceedings, his own short notes,

embodying only the salient points, are much easier of reference than a verbatim report. It is always well to agree, with regard to shorthand notes, by whom they shall be paid for in the first instance, and that they shall be accepted as correct by both parties. It is perfectly useless to have two shorthand writers, one on either side. Generally speaking, it is convenient to have shorthand notes taken of the whole case, without necessarily having them transcribed in their entirety. It saves a great deal of time to have the speeches of counsel and arguments transcribed, as it is impossible for the arbitrator or umpire to follow these exactly with his notes without causing great delay. The heads of evidence he must himself be able to take down. In purely technical cases, such as dangerous structures, party or party fence walls, arbitrators or umpires should be capable of drawing their own awards. In fact, the Act would seem to preclude the employment of solicitors or counsel in these cases. The award should always begin with a recapitulation of the origin of the dispute; under what circumstances it has arisen, whether under contract or otherwise. This part, generally called the preamble, should be accurate and should enumerate the whole matter concisely. The award itself should be drawn carefully in as few words as possible, setting forth the items in dispute in separate paragraphs, one paragraph to each item rather than a connected sentence, stringing them all together, and it is sometimes necessary to attach and refer to diagrams or plans, &c. In it the arbitrator must recollect that he is both judge and jury, and, in fact, he has more power than a jury. A jury's decision can be upset on the ground of misdirection by the judge who sums up. An arbitrator has no one to sum up to him, and his decision on the facts is absolutely final, except as I have mentioned in party-wall cases. In most cases, except those above named, it is advisable to employ a solicitor to draw the award, furnishing him, of course, with all documents necessary to draw the preamble, but not with more than the heads of the decision at which you have arrived. If a legal point is strongly contested during the hearing, it is better to state at once that if such point is insisted upon you will make your award subject to a special case to be stated to one of the superior Courts. An arbitrator must also remember that he is not altogether in the position of a judge. He has to decide on facts, and not on law, and for that reason it is unadvisable and unusual that he should in any way give any hint of the reasons which have induced him to come to his decision. I have heard it said that this is cowardly, and that a man should be prepared to give his reasons for anything that he does, but I cannot see that this accusation is correct. The arbitrator has to do his duty according to his conscience, and the very essence of his employment is to put a final end to the dispute. His simple decision on a point of fact is an end of this, whereas if he gave reasons he might leave the matter open to continued and prolonged further litigation. Where a case is stated for the opinion of the superior Court it is necessary to give alternative decisions—that is, if the Court rule one way, then the decision will be so and so, the alternative decision being given in case the Court rules the other way.

As to costs of arbitrations, these generally follow the decision, but in many cases both parties may be equally in the wrong, and it may be necessary to give some decision as to how costs are to be allotted. Both parties cannot be equally in the right.

One last word on awards. In making an award do not hesitate, or attempt a compromise. As far as possible give your award one way or the other. Nothing is so unsatisfactory to both parties as striking a balance, or "splitting the difference."

Care must also be taken to issue the award within the periods prescribed by the Arbitration Act. But the umpire or arbitrator has power to enlarge the time for this, provided he does so in writing prior to the expiry of the prescribed period.

Now, having spoken of arbitrations, I should like, with your permission, to speak on the question of their avoidance. In building contracts, for instance, the necessity for arbitration often arises out of carelessness, either in the preparation of drawings, specifications, and sometimes of quantities, or out of the want of proper notes made during the carrying out of the works. It is only fair to a builder or contractor that at the outset of the job he should know fairly well what he has to do. To him it will make a great difference in organising his work and in ordering his materials; in fact, it may make the difference to him between profit and loss. Builders are human beings, and if they see a loss before them you are not likely to get as good work out of them as if they see a profit, and any contractor will tell you that he can work cheaper for one architect than he can for another. In the first place, contract drawings should not be looked upon as pretty pictures, solely from an artistic point of view. Every line should be definite, and should mean something; every colour should be an indication of material; shading should be avoided; the drawings should not be mixed, details being superimposed upon small scale drawings. Everything should be set out as far as possible with the view of giving the workmen actually employed what amounts to a book that they can read. Drawings and draft specifications should be completed before being placed in the hands of the quantity surveyor. Generally the quantities form no part of the contract, but it is only fair that the notes made by the quantity surveyor during the progress of his work should be carefully considered and added to the drawings and to the specification. The quantity surveyor should also have ready access to the architect during the process of taking out quantities, in order that any point not clear on drawings, &c., can be made so before the work is tendered for. An architect should, as far as possible, avoid all alteration of his design during the progress of the works, and ought to have made up his mind beforehand what he wants to have. Alterations are a fruitful source of dispute, though they often cannot be avoided on account of the idiosyncrasies of clients. The next great cause of dispute arises out of the question of giving orders for extras, omissions, and variations. It is almost impossible on works to give a written order for every variation and instruction required, but the clerk of the works or foreman can be instructed to make notes of these as they occur from day to day to submit them to the architect on his next visit, and if the architect initials them they can be then acknowledged to be orders in writing under the terms of the contract. The proper provision of full-sized and detail drawings and other details at the earliest stage of the works is of great use to the contractor, and the showing of consideration to him in facilitating the setting out of the work and the ordering of goods is an inducement to him to do his work conscientiously.

Of course, builders are also often in fault, raising contentions and unwarrantable claims. The only remedy for this is steadily to refuse to entrust them with further work.

With one more remark I shall conclude. A constant source of trouble in contracts is the attempt to please our client by trying to get a larger amount of work or more elaborate work done for him than an architect can properly expect for the amount placed at his disposal.

The Chairman, in opening the discussion, said, in Mr. Gruning they had an able exponent of the various intricacies of arbitrations, and he wished the paper had been a little more technical.

Mr. A. O. Collard, in proposing a hearty vote of thanks to the lecturer, said they were all much obliged to Mr. Gruning for his paper, though it might with advantage have included a few personal references to the practice Mr. Gruning had built up, so that the members might apply that experience to their own smaller affairs. It was said about artists that they were born, not made; and he would apply that to arbitrators. Certainly, he did not think Mr. Gruning would have been able to build up his large practice if he had not been a born arbitrator. They might have expected Mr. Gruning to have referred to the question of fees, and they might be glad to know if this sort of business was adequately remunerative or not. Mr. Gruning said that the object of arbitrations was to simplify the decision of disputes. It had always struck him (the speaker) that this object was attained in the case of building disputes when the architect acted as arbitrator, but when a man who had no technical knowledge of the subject was called in to adjudicate the matter was generally settled only after long delay. All those who had acted as arbitrators would agree that legal points must be avoided, for they complicated the issue and added to the confusion. In these matters it was common sense which helped to settle cases quickly. As to light and air cases, he was not acquainted with the Bill which was to be brought forward this session, and he would like to know what the result would be of the statutory notice which Mr. Gruning said would be such an improvement on the cumbrous and barbarous method of hoardings or screens. It seemed to him that if they were to send out these statutory notices when something was being done that might affect a client's interests there would be so many of such notices that the remedy would be almost as bad as the disease. What he would like to see brought about was the state of affairs in regard to light that existed in some other countries, *i.e.*, a total absence of law as to ancient lights, though, of course, in building a man had to have proper regard for his neighbour's land and buildings, and if we were all under such a rule and ignored it, and put up a building the lights of which might be obstructed by the neighbour's building, we ought to suffer the injury which would follow. These laws and customs of ancient lights seemed to be records of barbarous times, and the sooner they were swept away the better. He did not anticipate much good from the Bill. As to Mr. Gruning's suggestion as to models, that seemed a sort of millenial arrangement; it would be convenient, perhaps, and might be done, but while people fought about an issue, it did not seem to be practical. As to disputes between clients and architects, he did not know whether such disputes occurred often or not. He had never had such a dispute, and he could not believe that many architects were wholly or mostly to blame in such disputes. Among the variety of clients one had in a lifetime there were many curious and cantankerous people, and probably some irritation and difficulty was due to architects not having the ability to make themselves understood, for there were people like that who could not explain their drawings or ideas. The more architects went about, and the more tact they acquired, the more likely they were to avoid these troubles. As to taking up awards there was the mysterious and old-fashioned method of the man who was appointed third surveyor preparing the award which the litigious gentlemen who had entered into the dispute could take up by paying the fees. He did not know whether that method applied in all cases, and he would like to know if there was a better method. It seemed odd that the fee should be paid in advance—possibly by the wrong person—and in the law courts a decision could be got and the bill would not come in until afterwards. If it was of advantage to become well acquainted with matters of arbitration—and it probably was—why should they not make a study of the matter as young barristers studied law work? Young barristers walked into the courts and took a keen interest in what was going on, and partly learnt their profession in that way. If any one wished to take up arbitration work it would be a good thing to attend arbitration cases and see how they were conducted. He had not been to the Association meetings for some time, and he desired to take that opportunity of congratulating them on the attendance on that occasion, and on the growing interest of the younger members in some branches of the profession. Twenty-four years ago they would not have got such an attendance on a similar occasion.

Mr. H. T. Hare seconded the vote of thanks to Mr. Gruning for his valuable paper. The paper was on a text-book subject, about which papers were not often read, and therefore Mr. Gruning's lecture was particularly valuable, especially as it contained a great many hints as to methods and procedure. One of the main reasons why arbitrations were so generally the means of settling disputes in building matters was that in building contracts and questions relating to building it seemed almost impossible to get the legal mind to grasp and understand the points. He had been in the courts once or twice when building cases were being heard, and he found it amusing to see the muddle into which the lawyers got directly they began to argue on the subject. This being the case, it seemed to be a necessity for questions of this kind to be settled by professional men conversant with the technicalities. As to the question of ancient lights, Mr. Gruning mentioned that the special committee of the Institute of Architects

and of the Surveyors' Institution was dealing with the question with a view to amending the law. This seemed to be very desirable, for there were many ways in which the law might be simplified. He did not know if it was proposed to do so, but he thought it might be done with advantage—*i.e.*, to make the angle of 45 deg. a recognised standard. It was not recognised at present, and although one naturally referred to it in most cases, it had no legal status; but in most cases, where the light had an angle of 45 deg., it was reasonable to think that that light was not seriously impaired. If that standard were legally recognised, it would simplify a great many cases. Looking at the question of ancient lights in a general way, he was disposed to agree with the last speaker. The only way to settle the question of ancient lights was not to have them at all. He could not see how a man had any right to light which came over some one else's property: he had right to light over his own land, but to nothing more, and if he wanted to put in a window on one side of his house overlooking the land of the adjoining owner, he must set back the building sufficiently to give him the light he wanted, and he ought not to be entitled to anything more. Anything more than that was stealing from his neighbour. As to party-wall notices, Mr. Gruning said that the building owner should be prepared to say in his party-wall notice what he proposed to do. That was almost an impossibility, because in such work you could not tell what you were going to do until you really got to work, and the usual party-wall notice, for that reason, stated every possible thing you could do with the wall. With regard to building contracts, Mr. Gruning referred to them in a casual way. If quantities usually formed part of the contract the number of arbitrations would be reduced by one-half. The only just contract was the contract of which the quantities formed part. The builder could not be expected to check the quantities, and if he did not do so, there was no possible means of knowing whether they were correct or not. If the quantities formed part of the contract, the architect, who was sure to make variations as the work was proceeded with, could make what alterations and improvements he liked, knowing that the settlement would be on a fair and equitable basis. No architect, if quantities were part of the contract, would vary the building out of reason, and to the detriment of the client. He might add that he always made the quantities part of the contract where he could.

Mr. C. H. Brodie, in supporting the vote of thanks, said the good arbitrator needed qualities which we did not all possess. As to the taking up of awards, that was a serious matter, because a man might be appointed an arbitrator and make his award, and yet the award might not be taken up. The arbitrator may have devoted ten, twenty, or even the forty days Mr. Gruning spoke about, and yet he would not get a penny if the award was not taken up, and he would like to know how Mr. Gruning got over that difficulty. There was another eventuality which sometimes occurred, and that was the death of one of the parties. He knew of such a case, and no one connected with the arbitration had been paid, and he did not believe they would be. If one of the parties died, and the other did not care a straw about the matter, there was, apparently, an end of the whole thing, and no one got any fees. Another point that was not referred to in the paper was as to the Tribunal of Appeal under the London Building Act. That tribunal was an instance, and a very fine instance, of the action of arbitration. The three gentlemen who constituted the tribunal were practically arbitrators, and they knew thoroughly the subjects relating to which cases were brought before them, and the decision, which was given in a very short time, was likely to be exceedingly just. As to the question of light and air, it fell to his lot, as secretary of the Practice Committee of the Institute, to move in that room the appointment of the Joint Committee of the Institute and the Surveyors' Institution. The Committee was appointed, and they met and had the assistance of two eminent King's Counsel. Now that assistance was only too apparent in the suggestions for the draft Bill which it was proposed to bring before Parliament. His views on the subject were entirely in accordance with the views of the two previous speakers. He said emphatically—and he spoke from experience in France and America, where no such thing as ancient lights was known—that no alteration of the law would be satisfactory which did not prevent, after a certain day, the acquirement of rights of light over any land but your own. The state of the law as it now existed was a scandal, and the assistance of those two eminent King's Counsel had been to the detriment of what the Committee had been aiming at. Those two gentlemen might feel that it was perfectly useless to go to Parliament asking for the abolition of the law of ancient lights, and if it was useless to do so then they had better ask for the little that was being asked for rather than nothing at all; but he felt most strongly that the only proper amendment of the law of ancient light was its abolition, though, of course, existing rights must be respected. He agreed with Mr. Hare in his remarks as to the angle of 45 deg., but they must bear in mind that the angle must be a lateral angle as well as a vertical one, because lights were as often injured by being built close up at the sides as by being built above, directly in front. Mr. Collard was slightly in error as to statutory notices. A statutory notice was only to be given in a case where a man was attempting to "steal something from his neighbour," as Mr. Hare rightly put it. Instead of putting up a huge screen you could serve your neighbour with a notice that the window he had put in overlooking your land should never become an ancient light. As to dilapidations, the Practice Committee of the Institute for the last two years had been engaged in producing a book on the subject. The book was practically complete, and he could not do better than advise members to get a copy of it when it was published, for he thought they would find the subject treated in a very complete and able manner. As to the Factory Acts, the Practice Committee took a very active part last year in sending in a very strong memorial to the Government, who then had a Bill before the House for further amending the Acts. The Committee did this in agreement with the London Chamber of Commerce, and they pointed out to the Minister who had charge of the Bill that a further amendment was not necessary, but that what was necessary was a codification of existing Acts, involving, of course, a certain amount of amendment in the process. The result of those representations was that the Bill was withdrawn, and in this session of Parliament a Bill codifying the existing Acts had been, or will be, introduced. He mentioned these matters partly because of what one heard occasionally. He had seen only that day, in a paper which ought to have known better than to have published it, an unsigned letter, in which the writer took upon himself to say that the Institute was absolutely useless, and that he and others would leave it. A man who could write such a letter had better leave the Institute, for he was not in his place in belonging to it, especially as he did not put his name to the letter, and so show that he was not ashamed to write on the subject. As to the cost of arbitrations, it was perfectly well known to men who were engaged in this class of work that lawyers would not, if they could avoid it, let a case go to arbitration by a surveyor, and the reason for that was that these frequently would not throw the costs on the losing side. Lawyers argued that in going to the courts they stood to win or lose, and if they won they got their costs. In arbitrations the costs were frequently greater than the amount in dispute, and in many cases it was an injustice when an arbitrator gave an award which said that one side was wholly in the right, but which made both sides liable for the costs. By giving such awards the profession lost a great amount of work, and he agreed with Mr. Gruning that the costs should follow the event in the ordinary way. He agreed with Mr. Hare as to quantities forming part of the contract, and again, he might mention the Practice Committee of the Institute. They had drawn up a form of contract in which quantities would form part of the contract, and that amended form was to come before the general body of the Institute at the next meeting. As to the apparent inability of the ordinary legal mind to understand building disputes, that was a very interesting matter. There was a recent case in the courts which affected a firm of builders who had carried out a large contract. There was no dispute that extra work had been carried out, and equally that the work was not included in the quantities on which the builders had tendered, and it was agreed that the case should go before an arbitrator. This was done, and the arbitrator, who took a common-sense view of the matter, made his award subject to a legal point being settled by the courts. The point of law reserved was whether or not the builders were responsible for the correctness of the quantities, and it went before some highly-trained legal minds, and they decided that the builders were responsible for the quantities, and that it was the business of the builders to check the quantities, and in arguing on that one learned counsel made some astounding statements on the practice of building and as to what quantities were. They were absolutely ridiculous, and the decision of the court was just as absurd. It was a matter of absolute impossibility at the present time for the builder to check quantities. Bills of quantities, which took six or eight weeks to prepare, and which were often an extensive series of documents, could not be checked by builders in the course of four or six days allowed for sending in a tender.

Mr. H. A. Satchell considered the paper especially valuable as being based upon personal experience. He would like to ask Mr. Gruning as to party wall awards: Were they necessary? or could the building-owner avoid them and thereby escape paying the fees of the surveyor to the adjoining owner? He had peculiar pleasure in supporting the vote of thanks apart from his enjoyment in listening to the paper. On one occasion he had had a delicate light and air matter which, not knowing how to deal with, he went to Mr. Gruning, who gave him ungrudgingly the best of advice and, by suggesting a way out of the difficulty, probably saved him and his client the anxiety of an action.

Mr. Henry Lovegrove said that the best way to settle building disputes was by arbitration, and he thought the architect—or surveyor—arbitrator should be chosen. Years ago, before he devoted so much attention to the Building Act, he often acted as arbitrator. He found that where barristers were appointed to act as abitrators there was a great waste of time in discussing extraneous matters—points of law, for instance, instead of facts. When an architect or surveyor sat as arbitrator the discussion was kept to points of fact, and though cases might last a long time and were costly, the surveyor-arbitrator kept the discussion to the point. As to party walls under the London Building Act, he sometimes thought the adjoining owner's surveyor went into the matter with one idea in his mind, *i.e.*, fees, and he (the speaker) thought fees were often absurdly large compared with the work done. As to dangerous structures, he supposed he had had to deal with more dangerous structures than any other London district surveyor, and he had never had one referred to arbitration. The matter usually went before the magistrate in the ordinary way. As to questions arising out of the Factory Acts, he thought that some codification was required of the various laws relating to those Acts. He knew of a case of a warehouse of four floors, each let out to different people, and, the County Council requiring something to be done—fire escape staircases, or something of the kind—the owner served each tenant with a proportion of the cost of the work, and also a proportion of the 5 per cent. commission of the architect engaged. He (the speaker) was asked by one of the tenants as to the legality of this, but all he felt able to do in the circumstances was to advise the tenant to consult a lawyer. As to light and air, the matter came before the Science Committee of the Institute when he was Secretary of that Committee, and after various reports had been prepared he told the Committee that it was impossible to do much in the matter while there were so many lawyers in the House of Commons, for questions of light and air made so much work for the legal profession that they would not favour a change of law. Long before the foundations of a building were finished, ancient-light boards were often to be seen on adjoining property. As to disputes on building contracts, they should be referred to practical men—surveyors or architects. He had been in the courts during the hearing of building cases, and the ignorance of judges and lawyers on building matters was lamentable; they often did not know the terms, even, in matters on to which they were asked to give a proper decision. As to dilapidations, it seemed to him, in reading the decision of judges, that they now take a more

common-sense view of the question of dilapidations than they used to do; they did not now require a man practically to rebuild premises after occupation. Some gentlemen seemed to think that much good would result if quantities were made part of the contract. He agreed with that; but on the other hand it might be said, and was said, that to make quantities part of the contract would encourage slipshod quantities generally, and would make people trust to chance and the absence of responsibility. When quantities were not part of the contract, surveyors were careful to do the work thoroughly. In Scotland, they had a tentative bill of quantities, and work was measured up at the end.

Mr. H. J. Leaning said that by arbitration he thought they got the fairest results so far as building disputes were concerned, but he was looking forward to the day when there would be a court to which building and similar disputes could be referred. They were apt to suppose that the subject of building was more intricate than anything else, and that no one could understand it but technical minds; but every branch of engineering was quite as difficult to follow as building, and the only possible solution of such problems was by arbitration. The drawback to arbitration was that there were no precedents, whereas if the matter went to a court of law, one got a registered decision which became a precedent. By arbitration questions were settled over and over again, and nothing could be quoted. He did not know why the Chamber of Arbitration, which was established by Sir A. Rollit, had turned out such a lamentable failure. The scale of fees was fixed and was unalterable; there was a staff of arbitrators of every conceivable kind to select from; and yet, in spite of that, a very small proportion of cases came before the Chamber. He could only suppose that the legal profession set their face against it. As to arbitrations, he had found out from experience that one was inclined, when one had a good case, to go a little too fast for the arbitrator. It was a good plan when there was no shorthand writer present to sit near him and see that he took down your points.

The Chairman, in putting the vote of thanks to the meeting, said that from the paper and the discussion it was clear that they must put themselves in the hands of the born arbitrator in cases of dispute; but the arbitrator's position was in danger, for if the angle of 45 deg. in light and air cases was recognised by law, and if easements such as rights of light over neighbouring properties were abrogated, the arbitrator would not have much more than party walls to deal with.

The vote of thanks having been heartily agreed to,

Mr. Gruning, in reply, said he must disclaim being a born arbitrator. It was a matter of pure chance that arbitrations had come in his way. He often acted as arbitrator in the past, but of late years, owing to the decease of older men than himself, there had been a sort of concentration on his head of the desire of people that he should decide the disputes that occurred. Possibly his reputation had grown from the fact that in the early part of his career he had had to fight a good many party-wall and light and air cases, and he got the reputation of being a good fighter. Certainly, in that way he got a good knowledge of the law, and that had stood him in good stead since. As to statutory notices in regard to light, they were simply notices that you object to the light being opened over your premises, and in that way prevent the light becoming an ancient light. That was better than putting up a screen or building a wall. He was aware that there was no law of light in America or France, but in France there was a law which did not allow you to open a window on your own premises, except within a certain distance of your neighbour, which was a sort of compensation. As to costs of arbitrations and the fees payable, the arbitrator's or umpire's fees were a matter which was sometimes fixed by custom, sometimes by agreement, and sometimes by a sort of scale. A case of an arbitrator not being paid his fee because his award was not taken up, did not often occur, and he had had no such experience. The arbitrator could guard himself against that by doing as the arbitrator did in the dispute about the erection of Tilbury Docks, *i.e.*, by refusing to sit unless he received his fee every morning at eleven o'clock; and there were circumstances which made him (the speaker) think the arbitrator in that case was right. The custom as to taking up of awards was simple. The arbitrator made his award, wrote upon it the amount of his fee, and left it with the solicitor, and the award was not surrendered until the fee was paid; but in party-wall cases it was usual to arrange what the fee should be, and to give up the award trusting to the honour of the architects, surveyors, and their clients, and he might add he had never been disappointed in trusting to their honour. As to the right to ancient lights, if he expressed his private opinion, apart from decisions in particular cases and apart from the law as it stood, he must say he quite agreed with what had been said, and particularly with Mr. Hare's remarks. Ancient lights were a shameful imposition on the neighbouring owner or occupier, and how such a law should have come into existence and have grown he could not understand; but the law existed, and the Joint Committee were doing the best they could to minimise the hardship, rather than attempt the impossible, *i.e.*, the abolition of all rights. He trusted that the draft Bill would be published in a short time. He might say that the Surveyors' Institution made some amendments in what had been passed by the Council of the Institute and by the Joint Committee, and those amendments had to go before the Institute to be agreed to. There was no doubt that the Bill, if it became law, would do a great deal to do away with disputes as to ancient lights, particularly by the procedure proposed, which would be like that under the Factory Acts or as to party walls. The delay and the stoppage of building work would be avoided that now took place when interim injunctions were granted, and if the Bill became law it would really abolish the first Court—the Court of Chancery—and appeal from the decision of the Tribunal of two or three surveyors would be to the Divisional Court or the Court of Appeal and an injunction would be granted within a fortnight. The angle of 45 deg. was a rough mode of settling disputes, and he had known cases where an angle of less than 45 deg. vertical did less harm. Every case had to be considered on its own merits, and it was impossible to lay down any one angle which would cover all points. Again, as to quantities forming part of the contract, the subject was too large to enter upon then. The usual course where they did not form part was for the builder to contract to do the work shown on the drawings and specifications, and the surveyor who had taken out the quantities was responsible to the builder for their correctness. He had purposely neglected to mention the Tribunal of Appeal under the London Building Act, because it was not a tribunal of arbitration at all. It was a tribunal appointed under certain circumstances, and was as much a court of justice as any court in the whole of England. It was really a legally constituted Court of Appeal. As to whether party wall awards were necessary, they were not necessary if they were not wanted. In nine cases out of ten no award was made; an agreement was come to and the building-owner carried out his ideas with the consent of the adjoining owner; but in law there must be an award if there was a dispute. If the adjoining owner did not give his consent within a given time, the Act said that the difference could only be settled by an award. Of course, the award could be made without reference to the third surveyor, and that was often done. He thought it was rather hard to say that the adjoining owner's surveyor appeared to be most concerned as to his fees. In his experience, the adjoining owner paid his own costs, and the surveyor had a great deal of trouble and responsibility. It was true that recent decisions as to dilapidations had made it easier for the tenant. Formerly, if a man drove a nail into a wall he had to pay for repapering the wall. As to the Chamber of Arbitration, to which reference had been made, they appointed a large number of arbitrators, of whom he was one, but he had never heard of it since—nor did he know that he wanted to, in consequence of the idea of that Chamber as to what was an adequate fee for a professional man. Much could be done by friendliness in trying to bring the parties together in arbitration, and that should always be done where possible, instead of proceeding to extremities. In reference to what Mr. Satchell had said as to how he had been helped by him (the speaker) on one occasion, if any junior member of the profession was ever in difficulties, and would like to go to him, he would always be glad to place his services at his disposal.

The Chairman announced that the next meeting would be held on May 9, when the following papers would be read: "Artisans' Dwellings, from the Municipal Point of View," by Mr. Owen Fleming; and "Artisans' Dwellings, from the Private Point of View," by Mr. L. Ambler. On the same date the result of the election of officers would be made known.

The meeting then terminated.

THE ARCHITECTURAL ASSOCIATION SPRING VISITS.

THE sixth and last spring visit was paid on April 26 to Perry Vale Fire Station and the Horniman Free Museum.

Mr. Owen Fleming, of the L.C.C., met the members at the new fire station, and first of all gave a short sketch of the history of the fire brigade. Since the brigade was taken over by the County Council, the improvements both in buildings and efficiency have been great, and it was therefore hardly a surprise to hear that the brigade had doubled in size in twelve years, and at the present time new stations are being designed at the rate of one in every two months.

The old stereotyped Gothic building familiar to Londoners has become a thing of the past, and the new buildings are far more in accord with the age and with the care and attention which is at last being paid to the well being and health of the men. A new departure is being tried, and has been put into effect at the West Hampstead Station, where the men are housed in cottages instead of in flats over the engine-room, and it would be instructive to know if this attempt at a more homely and natural method of housing is really a success as regards efficient working.

Mr. Fleming explained that the new system of the horsed escape which goes out first to a call introduced by Captain Wells has led to some slight modifications of plan, and necessitates an engine-room of not less than 40 ft. in length by 27 ft. wide, and by increasing the width to 28 ft. 3 in. the escape and engine are interchangeable in position.

These smaller stations have a crew of twelve; an officer, two coachmen, and nine men. The four horses are stabled immediately at the back of the engine-room, each stall having a door in front of the horses's head. There is a side entrance to a yard which abuts on to the stable and engine-room, so that when returning the escape and engine are brought direct into the yard and thence into position in the engine-room without having to be turned round or backed in from the front in order to place them in their proper position for exit. Immediately to the left on entering the engine-room is the watch-room, described by Mr. Fleming as "the brain of the building," for it is here that the whole system of communication between the street alarms, ordinary and sub-stations, and the central station culminates, and from which is arranged a complete system of speaking tubes and bells to the men's quarters. At night four men sleep in this room, the beds being portable folding trestles.

A capital recreation-room is provided with a billiard-table, as though the men have a good deal of time off duty, they must, of course, be in the station, and proper and adequate recreation is necessary.

In the basement is a washhouse with three copper coppers, and three sets of washing troughs. Provision is made for drying the men's clothes, a temperature of 120 deg. with free circulation of air accomplishing this in two hours.

The men's quarters above comprise living-room, one or two bedrooms, and small scullery. Some are provided with baths in a lobby, which are used in common.

The hose-tower is a necessary adjunct, though no longer used as a watch-tower. The hose, in 100 ft. lengths, must be dried quickly, or it rots, and thus 50 ft. of hanging space must be provided.

The general aim throughout the building is to minimise annual expenditure; glazed bricks are therefore used wherever possible, windows and doors are made in teak and left oiled, and thus not only is labour in cleaning saved, but the yearly up-keep in repairs is considerably reduced. Externally, glazed bricks are used to the ground-floor story and rough-cast above, with Portland stone dressings and tile roofs, and the general effect is very pleasing.

Fireplace, Duddingstone House. Designed by Sir William Chambers.

Throughout, the whole building is stamped with a directness and simplicity of treatment which has its own architectural reward, and though, in a sense, purely utilitarian, it again proves that true architecture can and should be made subservient to the needs and necessities of the age we live in rather than be a mere ornamental adjunct.

It should be mentioned that the Brigade "turned out" very smartly for the benefit of members, and after a hearty vote of thanks had been passed to Mr. Fleming, a move was made to Mr. Harrison Townsend's building, the Horniman Free Museum.

This most interesting building has been described and illustrated in the *Builder* for February 8 last, and therefore a long account is scarcely needed. Mr. Townsend has had a difficult problem to face: a long narrow site on rapidly rising ground, with a clay foundation. The difficulty of the levels has been well overcome by making the floor of the inner gallery on the same level as the balcony to the first gallery. The roof is entirely of iron construction, forming a large semi-circular top-light, the ribs being covered internally with fibrous plaster with broad and bold mouldings. The main ribs are carried right down to the ground by means of stancheons which are there anchored in concrete beds, the whole roof being practically carried independently of the walls.

The general treatment is plain and dignified, if, perhaps, somewhat lacking in colour. Externally, the front elevation and clock tower are in Doulting stone, and are certainly original in treatment and detail. The latter is curious, and strikes one at once as being more suited to a plastic material, such as terra-cotta, rather than a free stone.

The well-known mosaic designed by Mr. Anning Bell has unfortunately suffered, it is said, from a gas generated in the materials behind it, and the colours are so low in tone that its distinctive character seems somewhat lost and unsufficing. The bronze inscription panel by Mr. F. W. Pomeroy was much admired and noticed.

A visit was paid to the interior of the clock tower, which is 68 ft. high to the centre of the 10 ft. 6 in. dial, and some useful hints were obtained from Mr. A. W. Jarvis, who, in Mr. Townsend's regrettable absence abroad, most kindly met the members and explained the various plans and the difficulties which had to be met and overcome.

There is no doubt that the Museum forms a remarkable addition to the art treasure houses of London, and is in itself an educational influence of some value, by reason of its unconventionality of treatment.

REREDOS AND SCREEN, ST. THOMAS, HEIGHAM, NORFOLK.—On the 24th ult. the Lord Bishop of the Diocese attended at the Church of St. Thomas, Heigham, and dedicated a reredos and choir screen. The new reredos is constructed of Caen stone. It occupies the whole width of the east end, the centre width being 26 ft., and the extreme height 11 ft., and its style is of the fifteenth century. The work was carried out by Messrs. Harry Hems & Sons, of Exeter. The choir screen, which has been built at the east end of the south aisle to correspond with the clergy vestry on the opposite side, was by Mr. W. Wilkin, jun.

FIREPLACE, DUDDINGSTONE HOUSE.

THIS fireplace from Duddingstone House, of which Sir William Chambers was the architect, was photographed, among other details of the house, to illustrate the article on Chambers in our first issue of the present year. There was not, however, space for it on that occasion. We give it as an example of a chimney-piece with a certain individuality of style, though we must confess that we do not like the ragged line made by the angle of the frieze.

COMPETITIONS.

PUBLIC LIBRARY, KINGSTON-ON-THAMES.—Mr. Basil Champneys, the assessor in the recent competition for a public library, Kingston-on-Thames, has selected the design sent in by Mr. A. Cox, of Adam-street, Adelphi.

OFFICES FOR THE ECCLESALL BOARD OF GUARDIANS, YORKSHIRE.—The Board some time ago decided, in consequence of the inadequacy of the present offices, to erect a new building on land on the opposite side of Union-road. A number of plans were sent in by different architects, and Mr. A. H. Goodall, of Nottingham, was appointed assessor. The plans were also considered by the Buildings Committee, and the latter and the assessor both agreed on one set of designs—those sent in by Messrs. Ellis Brothers, Orchard-street, Sheffield. The Board adopted the decision of the assessor. The new buildings will cost 7,000*l.*, exclusive of furnishing. The plans placed second were those submitted by Messrs. Hall & Fenton, St. James's-row; and third, Mr. Joseph Norton,

of Norton Woodseats. The architects who were second and third will receive awards of 15*l.* and 10*l.* respectively; the 25*l.* offered as the first premium being merged in Messrs. Ellis Brothers' commission.

Illustrations.

THE BIRMINGHAM UNIVERSITY.

THE Birmingham University, which is at present inadequately housed in the building known as Mason's College, is about to erect for itself new and more complete buildings adapted to its growing needs on a site of 25 acres of freehold land generously given by Lord Calthorpe for the purpose.

Our illustrations explain the general scheme for the buildings, showing both the complete plan and, by a darker tint, those portions which are to be immediately proceeded with.

There is a rapid fall on the site from the north to the south of about 30 ft., and the natural contours of the ground suggested the semi-circular treatment as the best adapted to its configuration. The site has accordingly been prepared on two semi-circular terraces, with a difference in level of 16 ft. This preliminary ground work and the new University-road have already been carried out under the direction of Messrs. Thomas & Bettridge.

It is intended that when completed the buildings shall comprise all the departments necessary for the purpose of a modern University devoted to scientific instruction in many subjects and especially those which have a bearing on the several trades and manufactures of the Midlands together with the usual University training. The subjects provided for embrace mechanical, electrical and civil engineering, mining, metallurgy, applied chemistry, agriculture, veterinary science, brewing, botany, zoology, geology, commerce, law, and also a faculty of arts, where history, classics, modern languages, psychology, logic, and philosophy will have a place, and others will no doubt be added as time goes on.

The main or ceremonial entrance will be from the new University-road, along which the future administrative and other buildings will be ranged. Passing under a lofty tower and across a grassy court, the principal entrance leads into an entrance-hall 50 ft. square, from which the main corridor 12 ft. wide runs right and left, and from which access is obtained to the workshops, lecture theatres, professors' rooms, laboratories, &c.

The Great Hall, 150 ft. by 75 ft., occupies the centre of the series. Under it are the students' bar, the dining and common rooms, the staff dining and common rooms, and on a lower floor which, by the fall of the ground at this point, is a ground floor, the kitchens and offices are arranged.

The everyday entrance to the University will be from the south along a new road branching out of the public road. Here the bulk of the students will most easily gain access to the several departments in which they are engaged. Commodious cycle stores adjoin the entrance, from which, by a flight of broad steps, the lower plateau is reached, and into the lower corridor, which conducts to every part of the establishment.

The circular ring of buildings only is carried up to the first floor, on which museums, libraries, reading-rooms, &c., are placed. The radiating blocks of two floors each contain workshops, each 160 ft. by 50 ft., with additions at the southern ends 50 ft. by 40 ft., two blocks being devoted to engineering and one to mining and metallurgy, which, together with the Great Hall, are to be at once built.

In the south-west angle of the site a complete light and power station, with foundries and forges and other accessories, will be placed, and in the north-east angle a club and gymnasium are to be eventually erected overlooking the recreation-ground.

An underground conduit or subway will connect the power station with the whole range of buildings, and in it will be gathered all steam and other mains, electric light cables, &c. The power station itself, with its numerous accessories, will play a part in the education of the students, and as such will be on a proportionately liberal scale, and finished and fitted in a special manner.

It is proposed to face the several buildings with red bricks, and to use Portland or Darley Dale stone for the dressings. In the interior glazed bricks will be freely used, and the whole will be fireproof.

The deep friezes on the front across the museum pavilions, &c., are intended to represent the sciences and industries, to the elucidation of which the several blocks of buildings are devoted, and that over the central entrance will bear relation to the function of the University at large. Beneath it the arms of the neighbouring counties which have contributed to the University will be carved, and an extract from one of the Chancellor's addresses on the objects of the foundation will run across the façade.

The design is exhibited at the Royal Academy, though unfortunately (as noted in our article on another page) hung too high to be properly seen.

ASTON WEBB AND E. INGRESS BELL.

ORGAN-CASE FOR HAILEYBURY COLLEGE.

THE organ-case illustrated has been designed for a large organ, recently built over the west-end of the chapel of Haileybury College. The design of the existing building, with an arcade into a chapel shown in the right-hand corner, had to be taken into account in the design for the organ gallery and the projections of the case.

The case is of deal, painted, and is to be richly carved. The work has been executed by Mr. S. A. Hunt, of Hoddesdon, from the designs of Mr. Reginald Blomfield, of London. The drawing is exhibited at this year's Royal Academy.

RECENT DESIGNS FOR WALL-PAPERS.

THESE illustrations are photographed from specimens lent by Messrs. Jeffrey & Co., the well-known wall-paper makers, of some of the most recent designs made for them by various artists. As we cannot reproduce the colour, we have preferred to give them in a quiet neutral tint, so as to avoid any suggestion of colour and emphasise the fact that they represent only the line design and the method of treating floral forms as ornament. The values of light and dark are fairly suggested however, except in the "Pansy" and "Tulip" designs, where the blossoms in reality show lighter than the rest; a yellow tint, as is well known, always coming out dark in photography.

The designs include a frieze by Mr. Walter Crane, three papers by Mr. Heywood Sumner two by Mr. A. F. Vigers, and one by Mr. A. F. Rose.

Of the designs we prefer Mr. Crane's frieze and Mr. Sumner's staircase paper, both of which are fine and effective designs; and the "garden arbour" paper is a pretty fancy for a nursery or perhaps a breakfast-room. Of the other four, while we give them as examples of what is being done in this class of design, we must say that we regard them with little sympathy, and consider that they show a much too realistic use of natural foliage as ornament, or, if realistic is not exactly the word, a lack of severity of line and of conventionalism in detail. That, however, seems to be the direction to which the taste even of the better instructed class of persons is declining at present, and that their demand has to be met; but we regret it. Messrs. Jeffrey have much better designs than these in their showroom.

In connexion with the subject, we may congratulate the firm on having secured West-End show rooms in Mortimer-street, so that the purchaser who wishes to go where he can have the chance of finding the best wall-papers in London has no longer to undertake a "Sabbath day's journey" to Islington. At the back of the new premises is a long show-room, top-lighted in a very successful manner, the wall hung with a simple paper in a low green, designed by Mr. Walter Crane, and finished by the frieze of which the design is illustrated here, the rich tints of which contrast effectively with the sober green paper below. The new showroom will probably prove an advantage to the firm as well as a convenience to their clients.

LAND TRANSFER.—At the Building Societies' Association's meeting, to be held at Cheltenham on May 29 and 30 next, two papers will be read on the Land Transfer Act, 1897, one in favour of compulsory registration of title and the other against. On the invitation of the Committee, Mr. C. G. Cutler, Secretary of the West London Building Society, will read the first paper, and the second will be read by Mr. J. S. Rubinstein, solicitor.

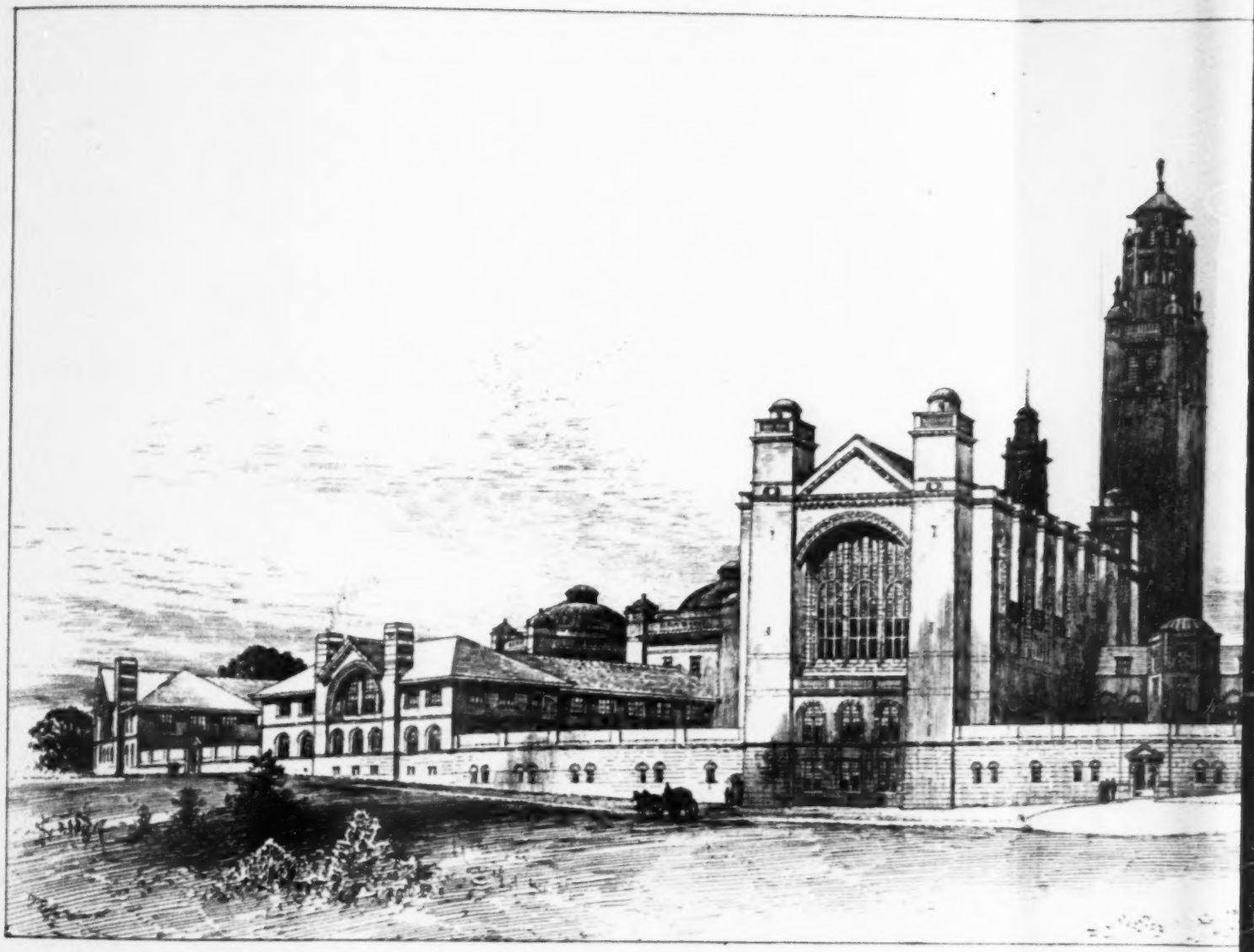
ARCHITECTURAL SOCIETIES.

LEEDS AND YORKSHIRE ARCHITECTURAL SOCIETY.—The annual Report of the Leeds and Yorkshire Architectural Society states that the Council have pleasure in reporting a considerable increase in the membership of the Society. There are now sixty-three Members, forty-six Associates, and twenty-six Honorary Members (a total of 134), representing an increase of four Members, twelve Associates, and seven Honorary Members. The following paragraph in the Report is of sufficient interest for quotation:—

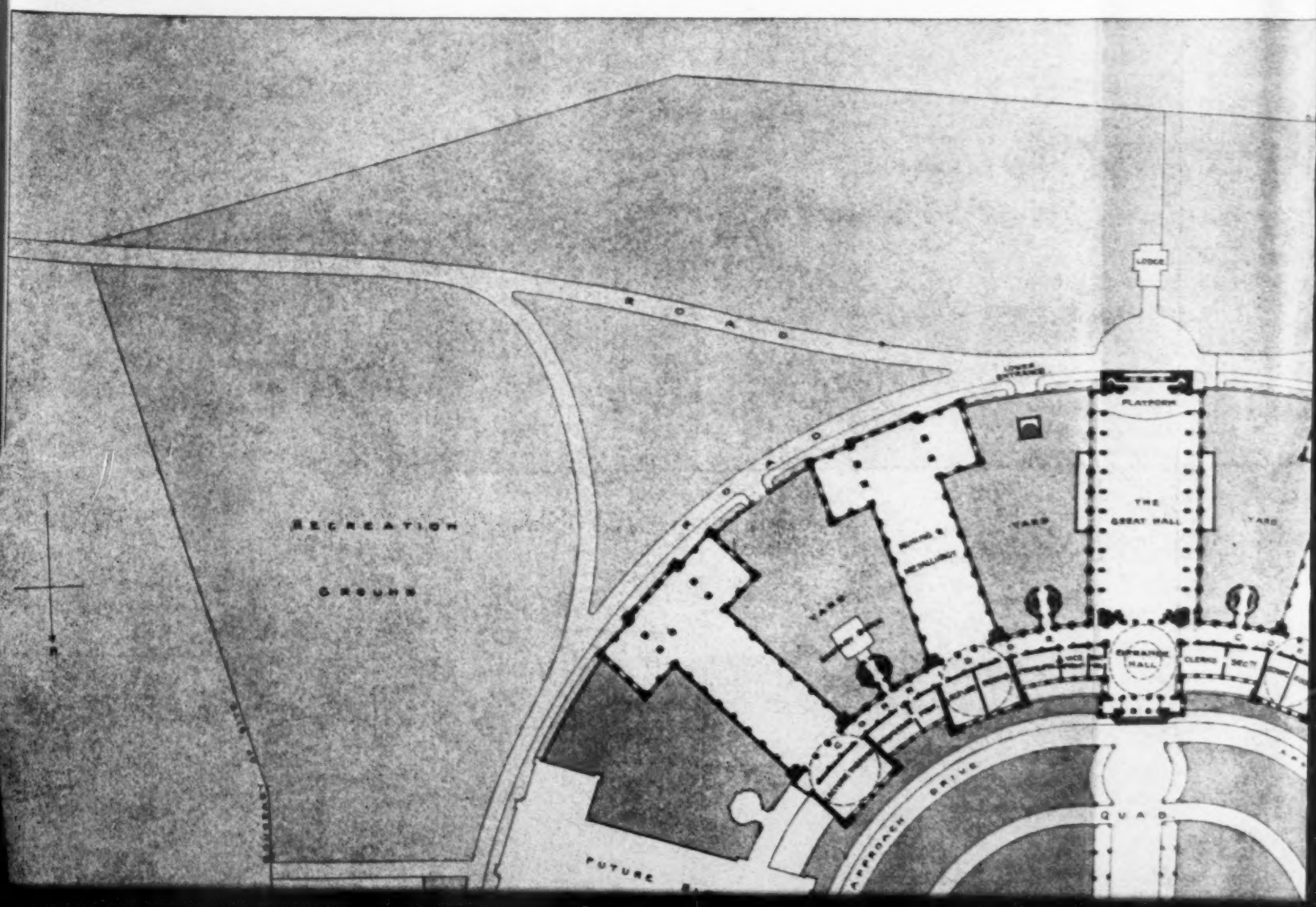
"The Council of the Society raised an objection to the assessor for the new baths at Bramley and York-road, Leeds, nominated by the Leeds City Authorities, on the grounds that the assessor in such a competition should be an expert in the design and construction of baths. The Council also suggested the names of some architects who would meet with their approval if appointed to the post of adjudicator. The assessor, though verbally expressing his willingness to refer the matter to the Leeds Town Clerk, refused to withdraw from his appointment, and awarded the premiums. The Council of this Society laid the correspondence with the assessor before the Council of the Royal Institute of British Architects, asking them to endorse the action of this Society. This the Council of the Royal Institute refused to do, stating that they considered it sufficient that an architect on being appointed an assessor in any competition should make such inquiries as would qualify him to judge of the merits of the designs submitted, whether he were a specialist in the particular kind of building to be erected or not. The Council of the Society wrote to the Council of the Royal Institute, saying that they could not agree with them in their decision."

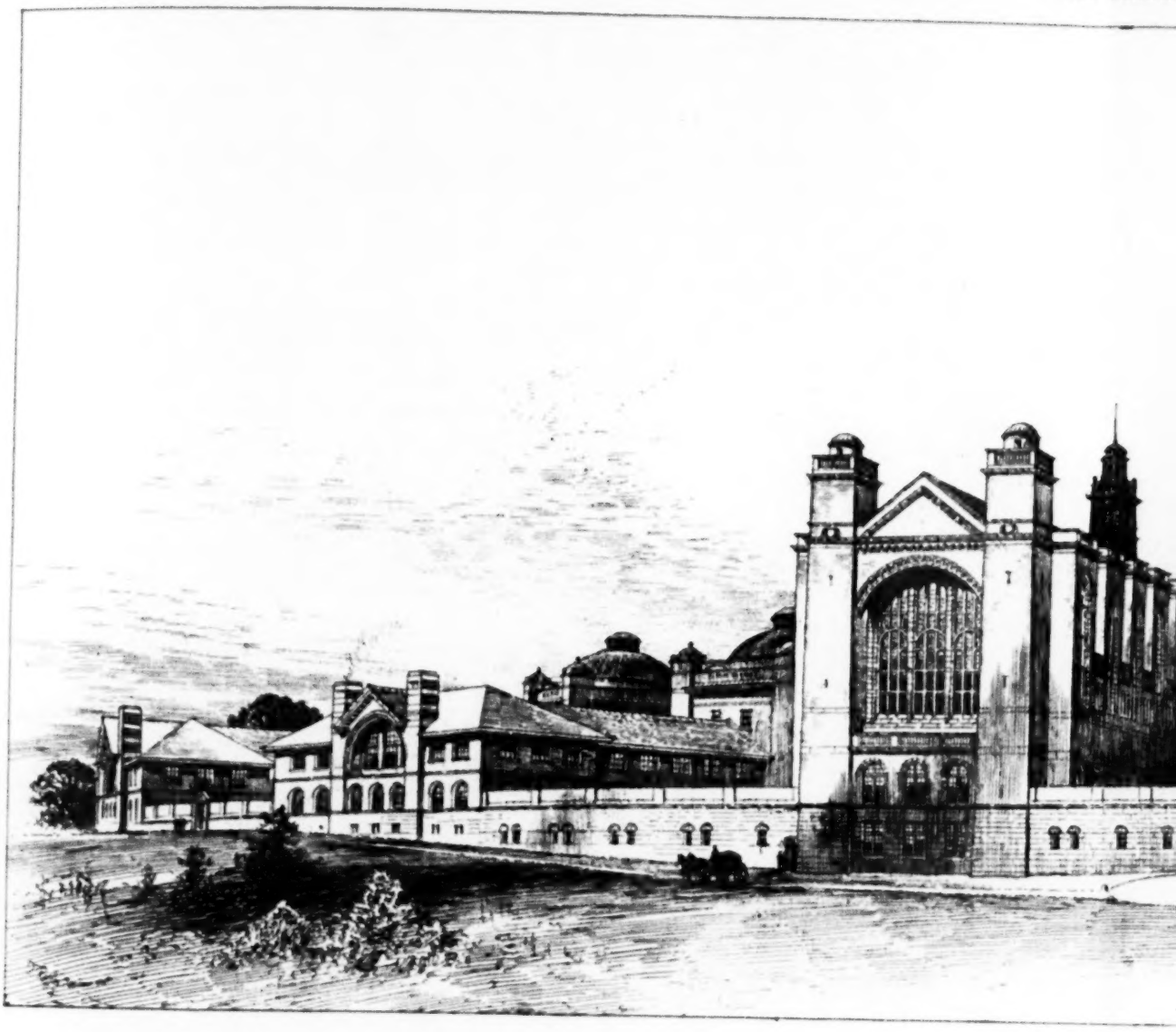
We think the Institute were quite right in their reply. The power of grasping what is required in a special form of building, and judging whether the problem has been solved in the best way, depends much more on the mental capacity of the assessor and his general knowledge of plan, design and structure, than on the mere fact of his having himself erected a building of the same class. Nor does the fact of a man having erected a building of a particular class necessarily make him the best judge of the designs of others. He may have built a bad one himself.

MANCHESTER SOCIETY OF ARCHITECTS.—At the annual general meeting of the members of this Society, held on April 24, the following officers and Members of Council were elected: President, Mr. Alfred Darbyshire, F.R.I.B.A., F.S.A.; Vice-Presidents, Mr. J. B. Gass, F.R.I.B.A., and Mr. J. W. Beaumont, F.R.I.B.A.; hon. secretary and treasurer, Mr. Paul Ogden, F.R.I.B.A.; assistant hon. secretary, Mr. George Brown; Members of Council, Messrs. B. W. H. Brameld, John Ely, F.R.I.B.A., E. Hewitt, F.R.I.B.A., J. S. Hodgson, J. Horsfall, F.R.I.B.A., J. D. Mould, F.R.I.B.A., W. A. Royle, F.R.I.B.A., J. H. Woodhouse, F.R.I.B.A., P. S. Worthington, M.A., A.R.I.B.A. (Fellows); and Messrs. F. B. Dunkerley, A.R.I.B.A., A. H. Mills, A.R.I.B.A., and Isaac Taylor (Associates). The thirty-eighth annual report stated that the aggregate membership was 193—viz., 92 Fellows, 52 Associates, and 49 students—as against a membership of 182 at the date of the last report. The proposal to create a Chair of Architecture at Owens College had received much and careful consideration at the hands of the Council of the Society, and during the past year several conferences had been held. No effort would be spared by the Council to further so desirable an object.—It having come to the knowledge of the Council that the Manchester Corporation were contemplating the erection of the Victoria Baths in High-street without first inviting architects in practice to send in competitive drawings, the Council passed a resolution which expressed satisfaction that the suggestion of the Council with regard to the appointment and duties of the city architect had been approved by the City Council, but urged that it was desirable that such an important work as was contemplated in the erection of the Victoria Baths, involving a large expenditure, should be thrown open either to limited competition or generally to local members of the architectural profession. The examinations of the Royal Institute of British Architects for the north-western division of the country had been conducted by the Council of the Society in conjunction with the Royal Institute of British Architects. In the Preliminary examinations forty-nine students were examined, and thirty-four passed. In the Intermediate examination twenty-two were examined, and thirteen



GENERAL VIEW FROM THE SOUTH





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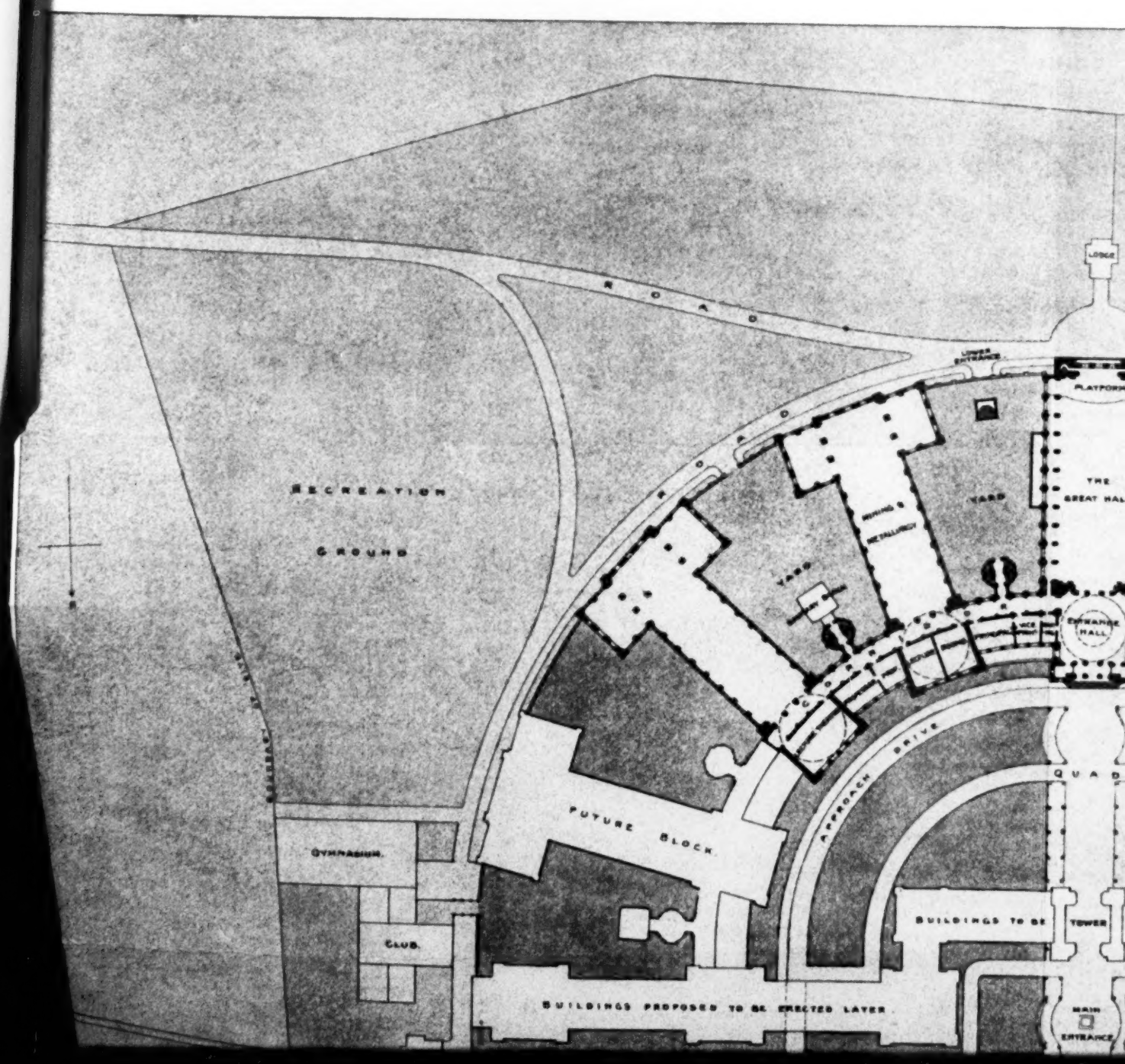

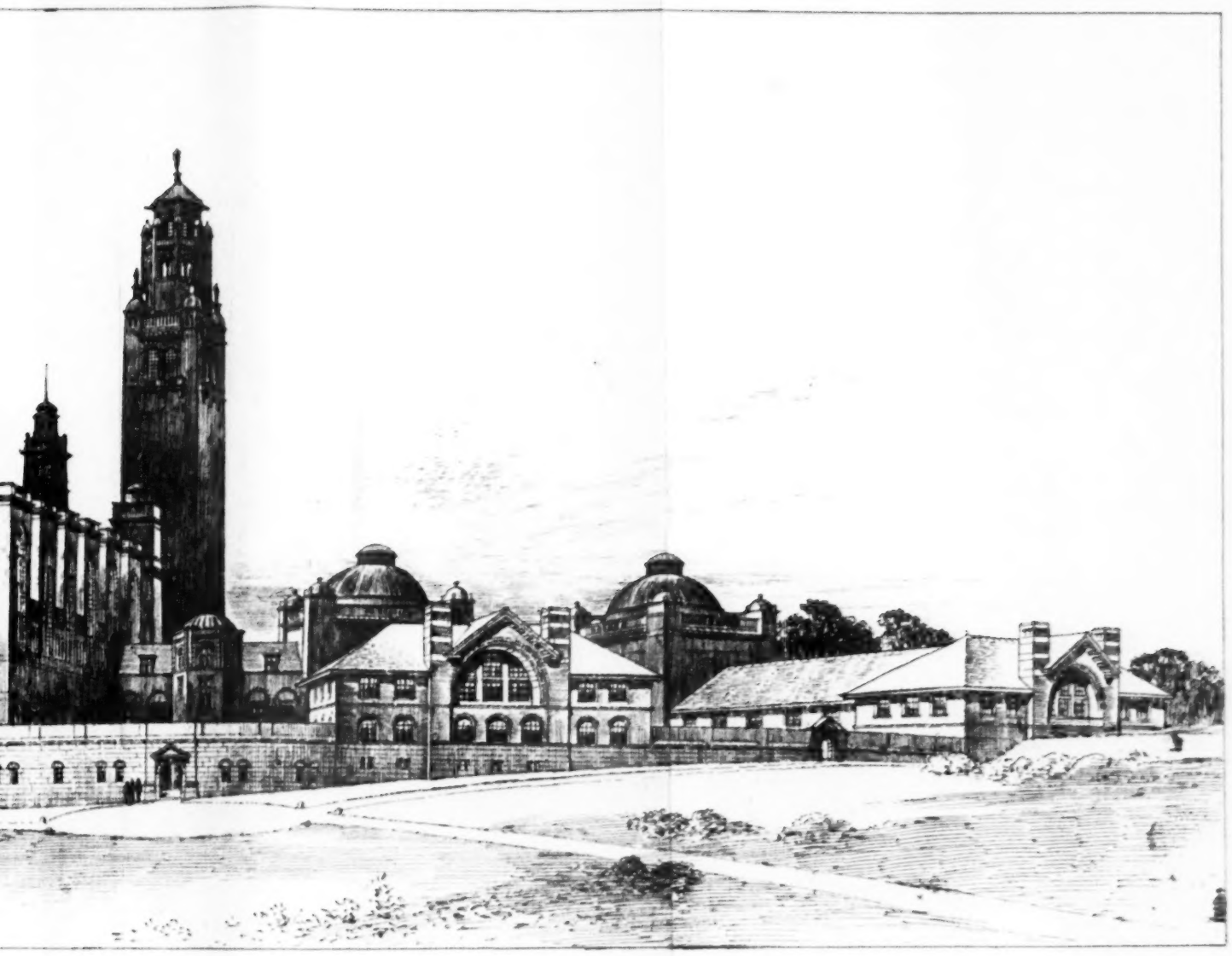

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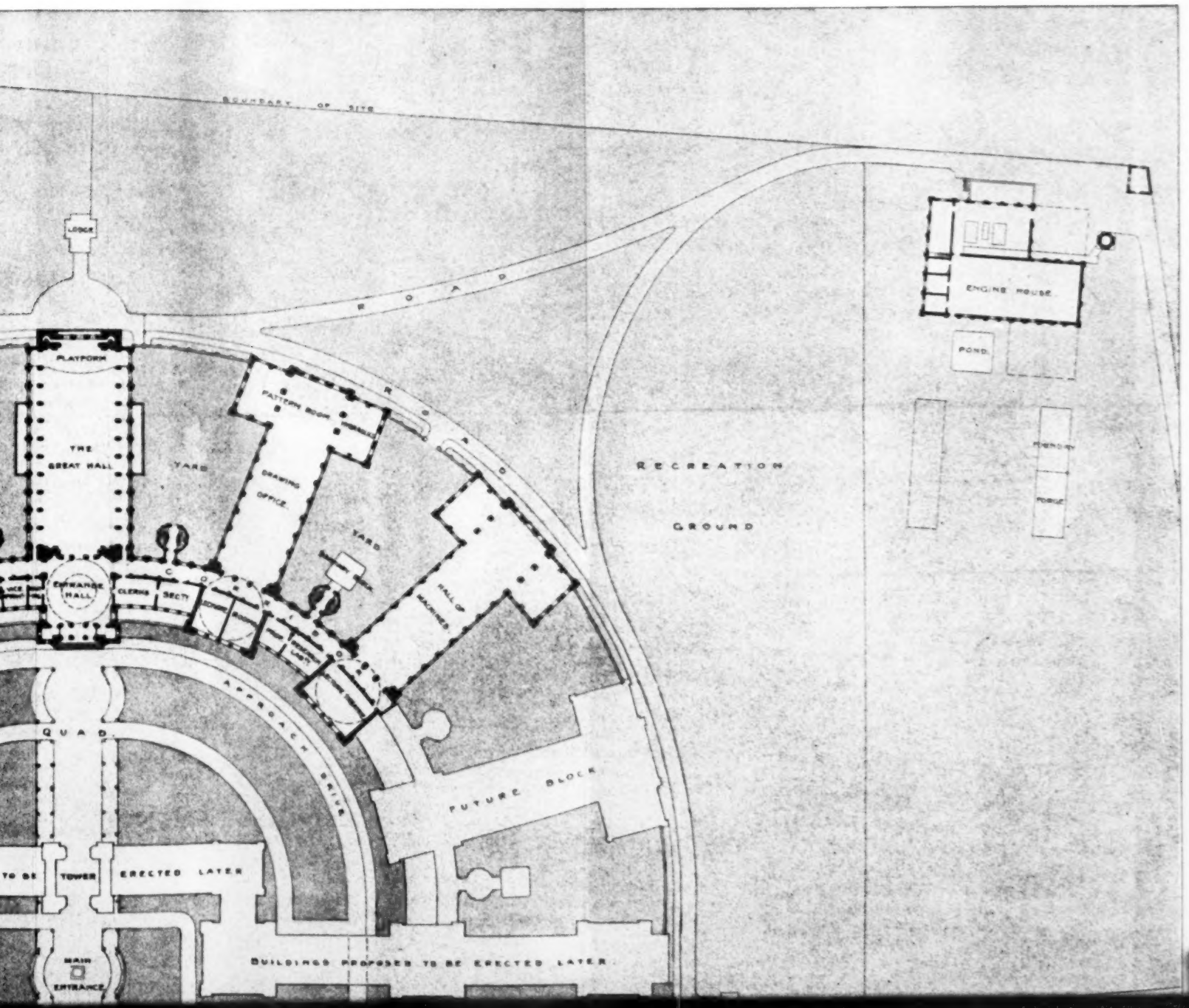
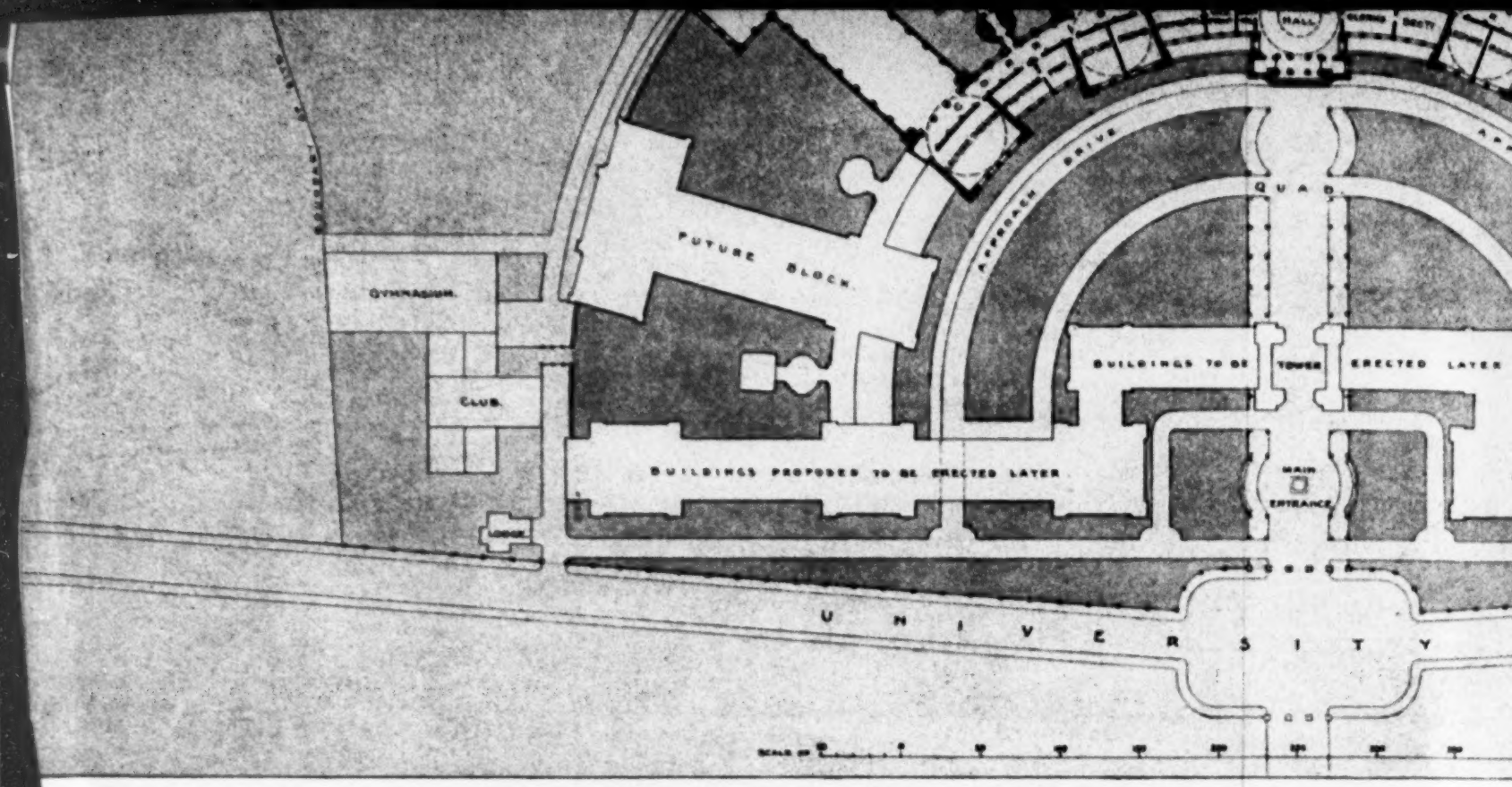
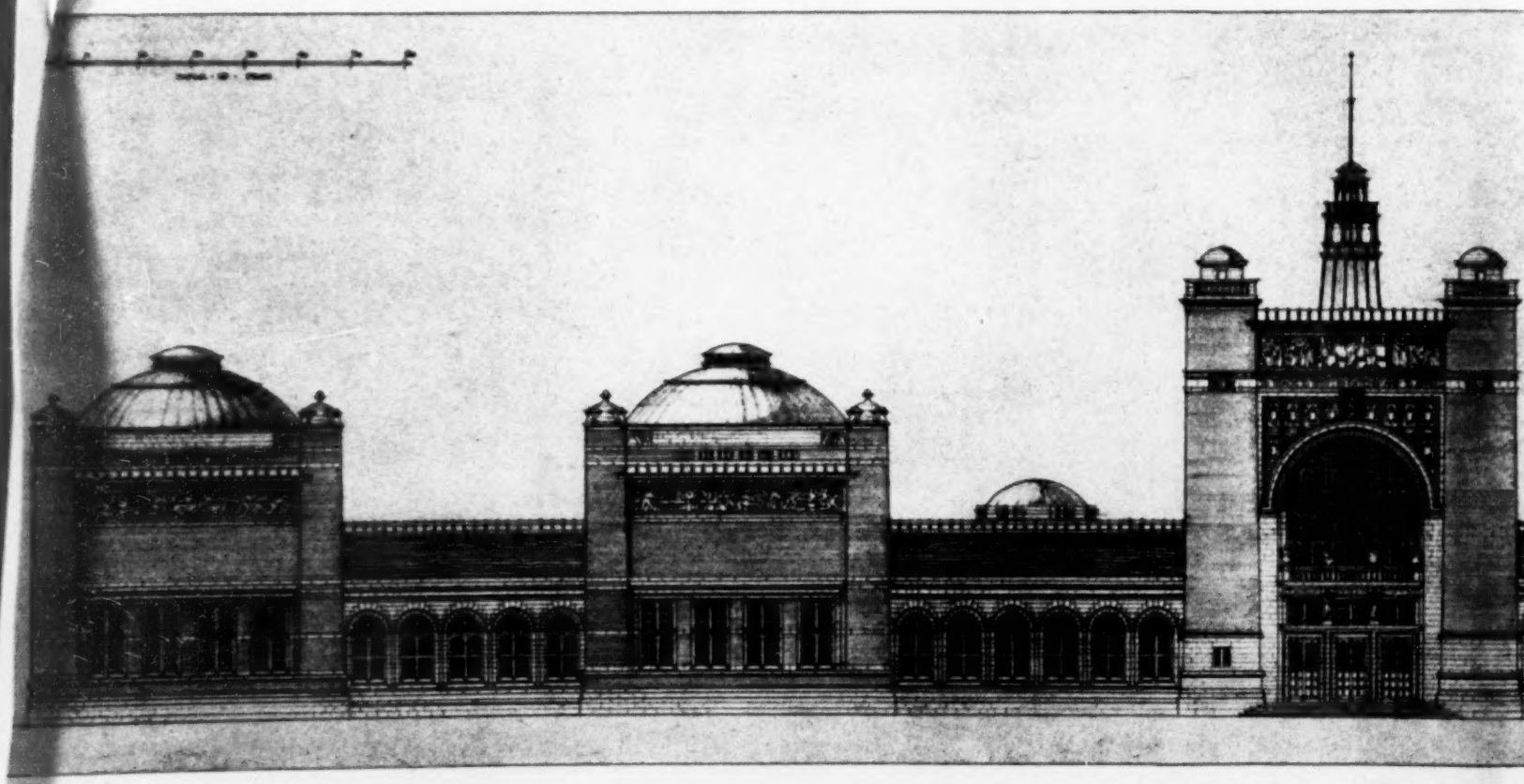




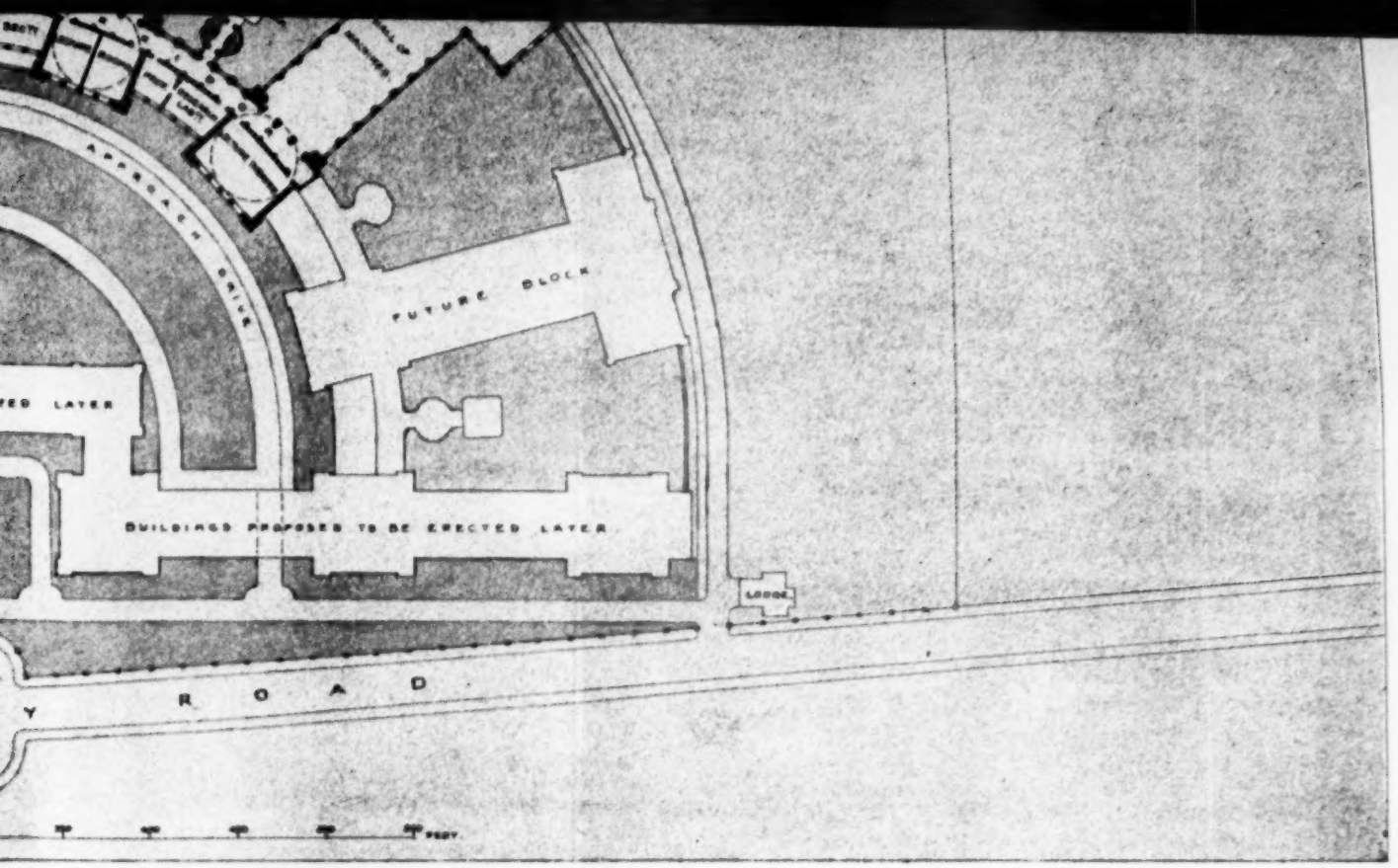
GROUND FLOOR SHOWING THE COMPLETE SCHEME, WITH THE BUILDINGS



ENTRANCE OR NORTH ELEVATI

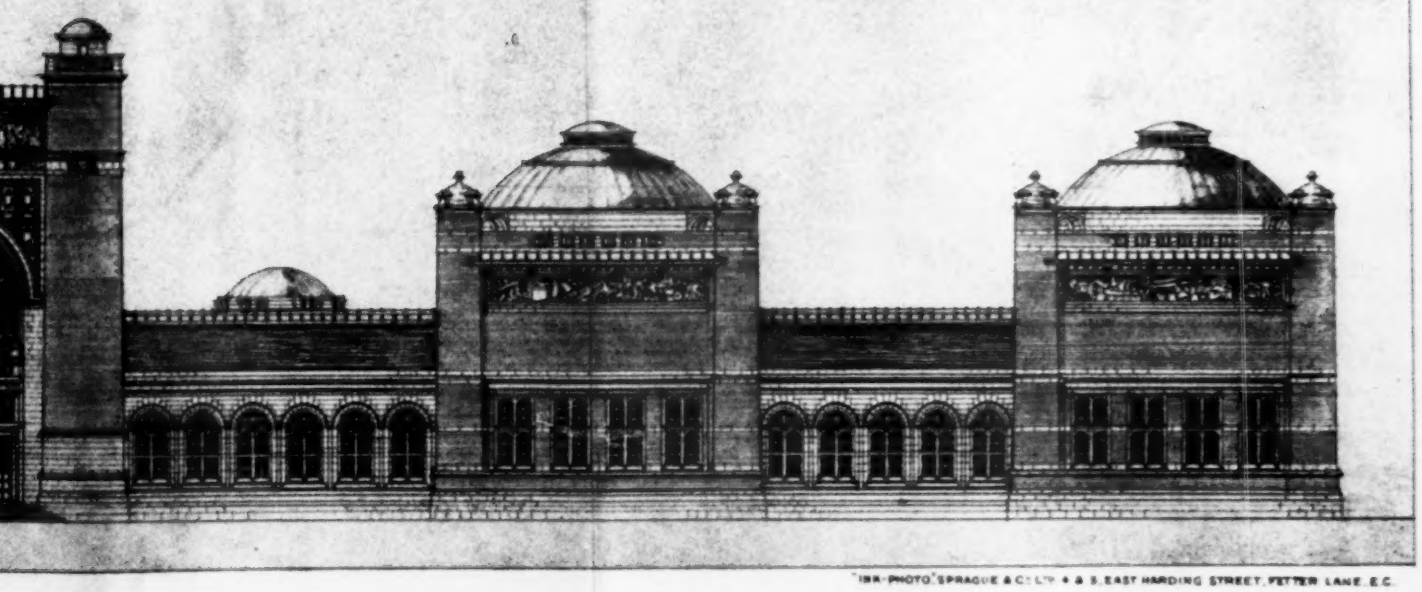
SKETCH PLAN AND ELEVATIONS OF THE B

MESSRS. ASTON WEBB, A.R.A., AND E. INGRESS



BUILDINGS ABOUT TO BE ERECTED IN A DARKER TINT.

ELEVATION : OF : ENTRANCE : FRONT.



"IBA-PHOTO" SPRAGUE & Co. LTD. 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

H ELEVATION.

THE BIRMINGHAM UNIVERSITY.

E. INGRESS BELL, ARCHITECTS.

DESIGN · FOR ·
new · organ · gallery ·
and · case · the · chapel
HAILEYBVRY ·
· COLLEGE ·

PLAN

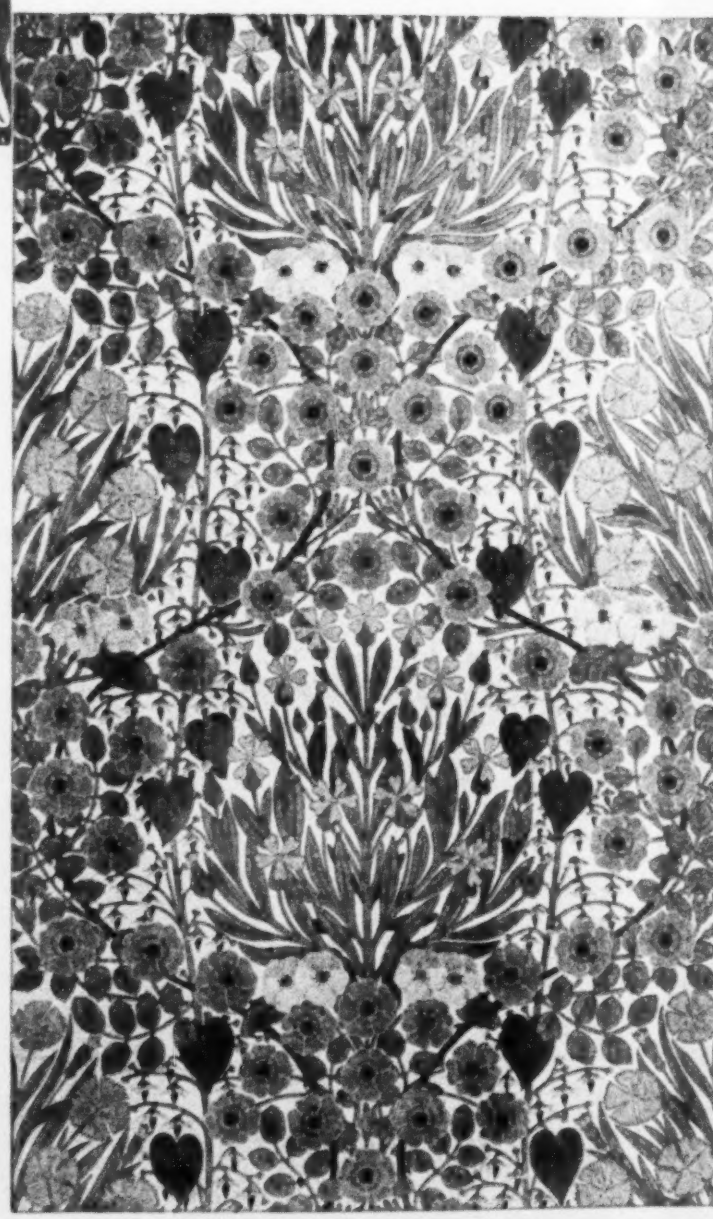
Alphonse Bourgeois
Architect 1901

PHOTO LITHO SWAINE & CO LTD 443 EAST HANDING STREET PETTAW LANE E.C.

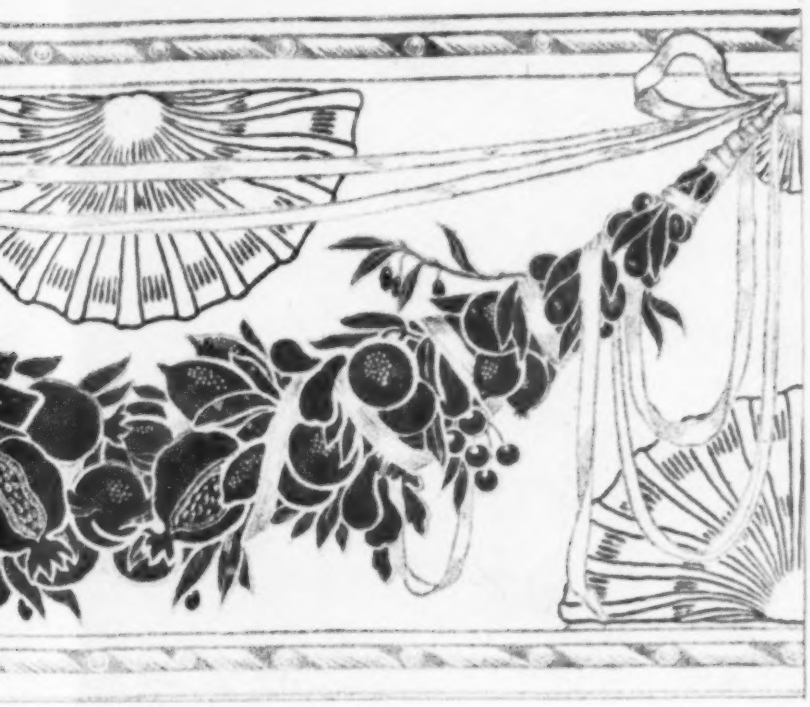
LARGE-SCALE STAIRCASE PAPER: BY MR. HEYWOOD SUMNER.

FRIEZE: BY MR.

"COLUMBINE": BY MR. HEYWOOD SUMNER.

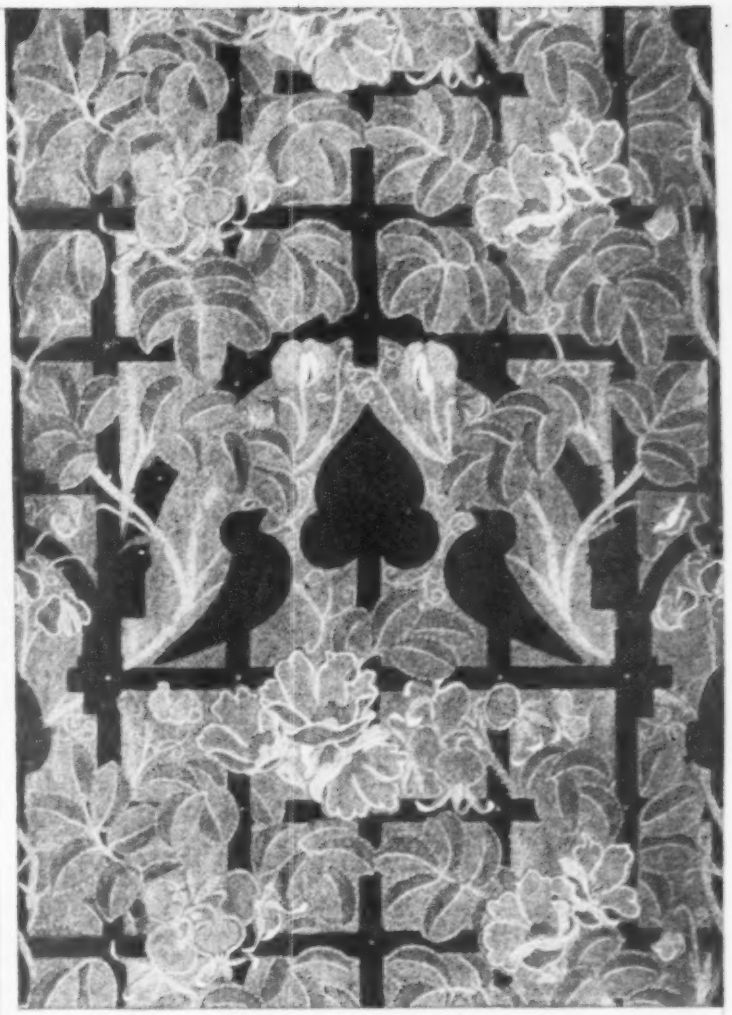


"PANSY": BY MR. A. F. VIGERS.



IEZE. BY MR. WALTER CRANE.

"TULIP": BY MR. A. F. VIGERS.



"GARDEN ARBOUR": BY MR. HEYWOOD SUMNER.

"JAPANESE ROSE": BY MR. A. F. ROSE.

INK PHOTO SPRAGUE & CO LTD 4 & 5 EASTHARDING STREET FETTER LA

ERS, BY VARIOUS ARTISTS.—MADE BY MESSRS. JEFFREY & CO.

passed. Reports of the Education in Architecture Committee and of the Competitions, the Library, and the Students' Committees were appended. A satisfactory balance-sheet was presented. The reports and financial statement were adopted.

LIVERPOOL ARCHITECTURAL SOCIETY.—The annual meeting of the Liverpool Architectural Society (Incorporated) was held in the Law Library, Cook-street, on the 21st ult., the chair being occupied by Professor Simpson. The Council, in their annual report, drew attention to the fact that the year had witnessed the second attempt to provide Liverpool with a cathedral. During the spring of 1901 it was rumoured that a committee of prominent Churchmen, who were investigating the advantages of the various sites, had decided on the blunted triangle known as Monument-place; but to the surprise of nearly all architects, it was announced that they had selected St. James' Mount. The Council took immediate steps to protest: they drafted a Report which was adopted by the Society at a special meeting, and sent to the Press and the members of the Cathedral Committee. Owing to unforeseen circumstances no protest could be made at the public meeting held in the Town Hall on June 17, when the choice of the St. James' Mount site was ratified. The Council, although deeply regretting the decision of the meeting, had taken no further steps to oppose what was evidently the wish of the majority of those outside the profession. On the motion of Mr. E. W. Willink, seconded by Mr. T. E. Eccles, the report was adopted. The following gentlemen were elected as officers of the Society:—Mr. John Woolfall, President; Messrs. T. E. Eccles and P. C. Thicknesse, Vice-Presidents; Messrs. Hastwell, Grayson, and Gilbert Fraser, Hon. Secretaries; Messrs. H. L. Beckwith and W. G. Dobie, auditors; Messrs. James Dod, Henry Hartley, E. P. Hinde, E. A. Ould, S. Pergin Powell, and W. E. Willink, Professor Simpson, Mr. E. G. Dickinson, and Mr. Arnold Thornely, members of Council. The Chairman suggested that the members should take into consideration the dealing with the George's Dock site, which was one of the most important positions in Liverpool, and one that concerned everybody, especially architects. He explained that the Estate Committee had been asked to receive a deputation of the Society, so that the views of the members could be laid before the Committee. A formal reply had not been received, but he understood that the Committee were willing to receive the deputation. Mr. Willink briefly explained the details of the plan which had been prepared. After some discussion, it was moved by Professor Simpson, and seconded by Mr. Grayson, and adopted—"That this meeting of the Liverpool Architectural Society approves the suggestion of the Council, that the whole space, or as much as possible, should be left open, between the continuations of Water-street and Brunswick-street, and that a wide building should be built on the north side to balance the Dock Offices." Messrs. P. C. Thicknesse, A. Thornely, and Professor Simpson were elected to form the deputation. A vote of thanks to the Chairman concluded the proceedings.

DEVON AND EXETER ARCHITECTURAL SOCIETY.—On April 24 Mr. F. W. Meyer, landscape gardener, read a paper before the Society at the Athenæum, Exeter, on "Garden-making." He said that unfortunately architects and landscape gardeners did not always work in harmony together. The architect who designed a handsome building and the landscape gardener or garden architect who designed a garden were generally both actuated by the very laudable desire of making the most of their profession. This was as it should be, and by working hand in hand, as it were, the work of one might be greatly facilitated and even enhanced by the work of the other. Sometimes, however, it happened that the architect who designed, say, a mansion and superintended its erection laid out not only the immediate surroundings of that mansion, but the whole of the grounds as well. In ninety-nine cases out of a hundred such procedure must prove disastrous unless the architect was also a specialist in horticulture. Designing a garden did not depend merely on the rules of architectural symmetry or hard and fast rules of design. Though in a large garden adjoining a mansion the immediate surroundings should, if at all possible, be in harmony with the style and character of the building, the principal and the most pleasing effects of every garden could never be attained by stones, bricks, and mortar, or any other *dead* material; but must in all cases depend on the living and ever-changing materials of grass, shrubs, trees, flowers, &c., combined in such a way as to form a pleasing picture, not only in themselves but also as a whole, and to amalgamate and blend harmoniously even with the landscape beyond the garden. Without an intimate knowledge of trees, shrubs, and plants generally, no architect could design a good garden. His garden might look all right immediately after completion, but what would it be like, say, five or ten years hence, when the trees and shrubs had assumed larger proportions? The material of which a mansion was built changed neither in size nor in shape, but the material of which a garden was composed changed in both, and thus made it necessary for the designer to look many years ahead. He would most emphatically maintain that no good garden could be designed without its designer having a thorough knowledge of the plants to be used and the effect which they would produce, not only immediately, but, say, ten years or more after the work was complete. Some few years ago he read a book on the subject of "The Formal Garden," written by an architect, and was amazed to find in it a sentence to the following effect:—

"For the designer of a garden it is no more necessary to know anything about plants than it is necessary for a bricklayer to know how his bricks were manufactured."

He had nothing to say against a formal garden in the right place; but a formal garden, or any other garden, arranged on such lines as those quoted above, without a knowledge of plants, could, in his opinion, be never anything else but an absurdity. He would not condemn formal gardening altogether. On the contrary, he was strongly in favour of giving small gardens a more or less regular shape, and also in large gardens the immediate surroundings of the house should be in keeping with the regular style of the house, and the transition from the regular to the irregular style should be a gradual one. Since the architect and the landscape-gardener necessarily looked upon their respective work from entirely different standpoints, it was only right and just that when a new garden was to be designed in conjunction with a new house, the architect and the landscape-gardener should compare notes and then work hand in hand. But for an architect alone to lay out a garden was, he thought, as grave a mistake as it would be to employ a landscape-gardener to design a cathedral. To lay down hard and fast rules whether a garden should be in the geometrical regular style, or in the natural style was impossible. It was not merely a matter of taste, but must largely depend on existing circumstances and especially on the surroundings. But broadly speaking, he thought that of modern gardens the most pleasing ones were those which did not too rigidly adhere to either the geometrical or the natural style, but were a pleasing combination of both, and were, above all, in thorough harmony with their surroundings. When a sudden change is introduced there should be a visible motive forming, as it were, a connecting link between the different styles, which would otherwise give the garden the appearance of being the property not of one man but of different owners. Not contraction within narrow limits, but expansion must be the aim, and if by skilful treatment they could introduce an artificial perspective, a comparatively small garden might not only be made to appear much larger than it really was, but might be actually amalgamated with the distant landscape beyond, a result which in most cases would be found most satisfactory from every point of view. In order to give a better idea of the development of garden design and of the various styles of gardens he could not do better than show on the screen a series of pictures of ancient and modern gardens, which more clearly than words would illustrate what to do and what to avoid. [A large number of lantern slides were then exhibited and explained by Mr. Meyer, showing gardens in the most ancient as well as in the most modern styles, and included among others ancient Egyptian, Chinese, Japanese, and Roman gardens, gardens of the Renaissance period, modern English, French, German, and Swiss gardens, various styles of terraces (including the "undulating" terrace), and lastly a number of parks and pleasure grounds, rock and water gardens of Mr. Meyer's own designing, and laid out and planted by Messrs. Robert Veitch & Son, of Exeter.]

YORK ARCHITECTURAL SOCIETY.—At the annual general meeting of this Society the officers elected for the ensuing year are as follows:—President, Mr. C. H. Channon, F.R.I.B.A.; Vice-presidents, Messrs. A. B. Burleigh and T. Monkman; committee, Messrr. S. Needham, E. A. Pollard, A. G. Toomes, J. W. Biscomb, and H. C. Cannell. The hon. treasurer is Mr. T. Monkman; hon. secretary, Mr. Frank Ranly; and hon. librarian, Mr. S. G. Highmoor.

ENGINEERING SOCIETIES.

THE INSTITUTION OF JUNIOR ENGINEERS.—On Saturday, April 26, a large party of the members were enabled by the courtesy of the Board of the Corporation to visit the Trinity House Depot at Blackwall. Under the guidance of Mr. John Williams, the superintendent, and other officers, a complete inspection was made. The party also went on board the lightship lying alongside the wharf, the hot-air engines for air compressing and the other appliances being shown in operation. After leaving the wharf the party proceeded to Green's dry dock, and were shown over the Trinity House T.S.S. *Irene*. The workshops consist of superintendent's and clerks' offices, engine house, carpenters' and patternmakers', smiths', boilermakers', coppersmiths', lampmakers', fitting and erecting shops, chain cable, and general proving house, and gasworks for making oil gas, and compressing it for buoy illumination. The plant consists of a 16-n.h.p. horizontal non-condensing steam-engine, and tools of the ordinary kind, suitable for the special requirements of the service. The works executed include repairs to the machinery of the Corporation's steam vessels (eleven in number), the illuminating and fog signal machinery and apparatus of lighthouses, light vessels, and lighted beacons and buoys; repairs to day beacons and buoys; conversion of worn chain cables from light vessels to buoy service, &c. The number of workmen employed is, on an average, about 150. A 10-ton steam travelling crane is employed for lifting the buoys, sinkers and other heavy weights. The buoy store is surmounted by two lighthouse lanterns, which are used for experimental purposes in connexion with lights and fog signals. Immediately above the buoy store is a long, dark chamber, used in testing photometrically the powers of different kinds of burners and apparatus. A wrought-iron crane is attached to one of the lanterns for firing explosive fog-signal charges, electrically. At the next meeting on May 2, a paper "On Some Factors in Colonial Railway Construction" is to be read by Mr. Lewis H. Rugg; and on Saturday, May 10, a visit is to be paid to the Great Eastern Railway Works at Stratford.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

A SPECIAL general meeting of the Institute will be held on Monday next to elect the Royal Gold Medallist for the current year. The Chairman will move—That, subject to his Majesty's gracious sanction, the Royal Gold Medal for the promotion of architecture be presented this year to Mr. Thomas Edward Collcutt for his work as an architect.

The annual general meeting will then be held. At the same meeting the Institute will be asked to sanction the issue of a form of agreement and schedule of conditions for building contracts for use where quantities form part of the contract, the document being based on the form now in use with such variations as are necessary to meet the requirements of the proposed new form. The following are the clauses of the existing form which have been modified by the Practice Standing Committee to adapt them to the new purpose, the alterations and additions being printed in italics:—

1. The works shall be carried out in accordance with the directions and to the reasonable satisfaction of the architect, in accordance with the said drawings and specification *and bills of quantities*, and in accordance with such further drawings, details, and instructions in explanation of the same as may from time to time be given by the architect. . . . The contract drawings and specification *and the priced bills of quantities* shall remain in the custody of the architect, and shall be produced by him

at his office as and when required by the employer or by the contractor.

3. The contractor shall on the signing hereof furnish the architect with *the fully priced bills of quantities* for his use or that of the surveyor appointed as in Clause 13 hereof, and for the purposes only of this *contract*.

Clause 13.—The penultimate sentence to read :—

The variations shall be valued at the rates contained in the *priced bills of quantities*, or, where the same may not apply, at rates proportionate to the prices therein contained.

27. The words "prime cost" or the initials P.C. applied in the specification *and bills of quantities* to goods to be obtained and fixed by the contractor, shall mean, unless otherwise stated in the specification *or bills of quantities*, the sum paid to the merchant after deducting all trade discount for such goods in the ordinary course of delivery, but not deducting discount for cash, and such sum shall be exclusive of special carriage, the cost of fixing, and contractor's profit.

28. The commencement of the clause to read :—

The provisional sums mentioned in the specification *and bills of quantities* for materials to be supplied or for work to be performed by special artists or tradesmen, &c.

Such slight changes as are required in the preamble and agreement clauses will be called attention to at the meeting.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday in the County Hall, Spring-gardens, Mr. M'Dougall, Chairman, presiding.

Loans.—On the recommendation of the Finance Committee, it was agreed to lend Lambeth Borough Council 2,515*l.* and 7,210*l.* for paving works, and to sanction a loan of 7,295*l.*

Trafalgar-square.—On the Report of the General Purposes Committee,

Mr. Beachcroft asked whether something could not be done to mitigate the extreme ugliness of the hoarding in Trafalgar-square, which would be in existence for the next two or three months.

Mr. Robinson replied that he would communicate with the Works Committee.

Mr. Beachcroft also suggested that the Parks Committee and the Office of Works should do something in the way of floral decoration in Trafalgar-square on the occasion of the Coronation.

Mr. Robinson promised to make inquiries in the matter.

The Works Department.—The Fire Brigade Committee recommended that the erection of a fire brigade station at Mile End should be entrusted to the Works Committee at an estimated cost of 10,163*l.*

Mr. Goodrich moved an amendment in favour of advertising for tenders. Money would be saved by putting the work out to contract.

Mr. Fletcher seconded the amendment on the ground that this was not a class of work which should be given to the Committee, in view of the great losses already made by that Department in carrying out building works.

Mr. Torrance said the Department had been eminently successful in this kind of work, and the criticisms they had just heard were very unfair.

Mr. Cousins said Mr. Torrance's last remarks were not correct. At New Cross fire station, erected by the Department, the excess was 3,000*l.* over the estimates, and at Whitefriars the excess was 2,000*l.*, over the estimate. There were two fire stations which had been erected by the Department at a cost below the estimates, but the total in all fire brigade work was against the Department.

Mr. Allen, Chairman of the Fire Brigade Committee, pointed out that the Council had recently reaffirmed its determination to have a Works Department, and if that Department was to enter successfully upon its new career it must have work given to it. The Department had in the past carried out splendid work for the Fire Brigade Committee, and he hoped the Council would support their recommendation.

Upon a show of hands, the amendment was rejected, and the recommendation was adopted.

The Works Manager.—The Council on January 28 last accepted the resignation of Mr. W. Adams, manager of works, as from a date to be thereafter fixed. The General Purposes Committee now recommended that the resignation of Mr. Adams should date from May 31 next.

The recommendation was adopted.

Road Opening in Piccadilly.—On the Report of the Improvements Committee,

Captain Hemphill complained that the new extension of the roadway in Piccadilly had been opened up a short time after it was laid down, and asked who was responsible.

Mr. Davies, Chairman of the Committee, said the work had been done by an electric lighting company under the orders of the City of Westminster Council. It had, however, been arranged that no further work of the kind should be done until after the Coronation.

Holborn to Strand Improvement.—The Improvements Committee reported that the hoarding and shoring in connexion with this improvement, as carried out by the Works Department, amounted up to the present to 479*l.*, while the sale of old materials realised 1,127*l.*

Sewer Work.—On the recommendation of the Main Drainage Committee, it was agreed that the expenditure of 359*l.* 19*s.* 3*d.* incurred in excess of the vote of 13,115*l.* passed for the extension of the middle-level sewer, and the construction of a new sewer in Scrubs-lane as well as a length of sewer in connexion with an overflow from the Counter's-creek sewer, be sanctioned.

It was also agreed that the expenditure of a further sum of 855*l.* 8*s.* 6*d.* be sanctioned for repairs to the middle-level sewer between Old Ford and the Abbey-mills pumping-station, and that the expenditure of 2,217*l.* 4*s.* 5*d.* incurred in repairing damage done by an explosion to the Wick-lane branch sewer near Smeed-road, Old Ford, be sanctioned.

Elephant and Castle Theatre.—The Theatres and Music-halls Committee reported that the Council's suggestions for improving the structural conditions of the Elephant and Castle Theatre were either in hand or had been carried out. Plans had been submitted to the Committee by Mr. Woodrow, showing new refreshment-bar accommodation in connexion with the gallery and circle. It was intended to reduce somewhat the area of the bar accommodation. On the ground floor it was proposed to convert the space beneath the circle entrance stairs into an early entrance to the pit. The Committee recommended the Council to approve these arrangements.

The Report was adopted.

Marlborough Theatre.—The Committee further reported that new plans had been submitted for the proposed Holloway Theatre in Holloway-road, which was now intended to be known as the Marlborough Theatre. Alterations in the plans had been rendered necessary owing to the new regulations of the Council. If Macready-place were not used as a carriage-way, the site would comply with the regulations. The theatre would accommodate 2,380 persons, viz., 1,886 seated and 494 standing. It would be within the jurisdiction of the Lord Chamberlain.

The Council approved the amended plans.

Montpelier Music-hall.—It had been reported to the Committee that during a performance at the Montpelier Music-hall, Newington, on the evening of April 18, the exit doors at the end of the passages leading from the stage and stalls and from the centre of the hall were chained and padlocked. The Committee observed that it was hardly necessary to point out how important it was in the interests of the public safety that the exit doors at places of public entertainment should not be fastened while the public were in the building, except in such a manner as to allow them to open automatically on pressure being applied to them from within. The Council authorised the Committee to serve a notice under the forty-fifth section of the Act of 1882.

Office Accommodation.—The Establishments Committee recommended that the Council do take on lease for twenty-one years, determinable by the Council at the end of seven or fourteen years, certain accommodation on the ground floor and basement of the premises, 19, Charing Cross-road, at a rent of 750*l.* a year.

The Chairman of the Committee, Mr. Henry Clarke, in answer to a question, said that the Council already paid 19,000*l.* per annum in the way of rent, and they occupied eighteen premises other than the County Hall.

The recommendation was agreed to.

Central Store, Millbank Estate.—On the recommendation of the Housing Committee, it was agreed that the estimate of 900*l.* submitted by the Finance Committee in respect of the cost of the construction of a central store on the Millbank estate be approved; that the work of constructing the building be entrusted to Messrs. Spencer, Santo, & Co. on the same schedule of prices as that at which they are erecting the remaining dwellings on the estate; that the work be done as an extra upon the present contract with Messrs. Spencer, Santo, & Co.; and that the Housing of the Working Classes Committee be authorised to at once put the work in hand on the terms mentioned.

Tramway Tenders.—The following recommendations of the Highways Committee were agreed to :—

"That the estimate for 1,800*l.* on capital account submitted by the Finance Committee be approved; and that the Highways Committee be authorised to expend, in connexion with the reconstruction for electrical traction of the London County Council tramways, a sum not exceeding that amount in lowering the carriage-way of Clapham-road under the South-Eastern and Chatham Railway bridge, and in repaving with new wood blocks the portion of the carriage-way outside the tramway tracks. That the offer of Messrs. Griffiths & Co. to carry out, for the sum of 1,712*l.* 2*s.*, the work above specified, in accordance with the specification prepared by Dr. Kennedy, the Council's consulting electrical engineer, be accepted."

"That the arrangement with Messrs. P. & W. Maclellan, Ltd., and with Mr. Leonard Cooper made by the Highways Committee, relative to the supply of track rails and patent sole plates required in connexion with the reconstruction for electrical traction of further portions of the London County Council tramways, be confirmed; and that the expenditure on capital account of the sum of 614*l.* in connexion with the matter be approved."

Rotherhithe Tunnel Rehousing.—The Housing of the Working Classes Committee reported that Winchelsea-buildings, Swan-lane, Rotherhithe, would rehouse 200 persons displaced by the construction of the Rotherhithe and Ratcliff Tunnel. The Secretary of State had now approved plans for the erection of two other blocks, to be known as Rye and Sandwich buildings, for the accommodation of a further 400 persons, at an estimated cost of 16,750*l.* A tender to do the work for 16,184*l.* had been received.

The consideration of the Committee's recommendations was deferred.

Other business was disposed of, and the Council adjourned.

APPLICATIONS UNDER THE LONDON BUILDING ACT, 1894.

THE London County Council at their meeting on Tuesday dealt with the following applications under the London Building Act, 1894. The names of applicants are given between parentheses :—

Lines of Frontage.

Woolwich.—A one-story shop on part of the forecourt of No. 46, Plumstead-road, Plumstead (Messrs. Church, Quick, & Whincop for Mr. G. C. Realff and Mr. B. H. de Bertodano).—Consent.

Norwood.†—Two additions to the Norwood Technical Institute, Knight's Hill-road, Norwood, at the corner of Chapel-road (Mr. P. L. Waterhouse for the Technical Education Board of the Council).—Refused.

Width of Way.

Islington, South.†—Retention of a dynamo shed and an oil shed on the east side of Tyndale-mews, Essex-road, Islington (Messrs. Douglas, Young, & Co. for Messrs. S. Pearson & Son, Limited).—Consent.

Hoxton.—A block of buildings on the east side of Shepherdess-walk, Hoxton, with the external walls of such buildings at less than the prescribed distance from the respective centres of the roadways of Underwood-row, Underwood-street, and Nile-street (Messrs. F. Chambers & Son for Mr. F. J. Chambers).—Refused.

Bethnal Green, South West.—A two-story warehouse building commenced to be erected on the south side of Prince's-court, Brick-lane, Bethnal Green (Mr. G. H. Lovegrove for Mr. R. Button).—Refused.

Projection and Construction of Gangway.

City.—An iron and concrete gangway across Falcon-avenue, to connect, at the first floor level, a block of warehouses known as Nos. 9, 10, and 11, Falcon-street, with No. 6, Falcon-avenue (Mr. A. E. Pridmore for Messrs. Olney, Amsden and Sons).—Consent.

Deviations from Certified Plans.

St. George, Hanover-square.—Certain deviations from the plans certified by the District Surveyor so far as relates to the proposed conversion into bachelors' chambers of the portion above the ground floor of a building known as Hanover-buildings, Hanover-square (Mr. J. Sawyer for the Assets Realisation Company, Limited).—Consent.

Formation of Streets.

Hampstead.—That an order be issued to Mr. O. E. Winter, sanctioning the formation or laying-out of a new street for carriage traffic in continuation of Lymington-road, Finchley-road, Hampstead (for Council of the Metropolitan Borough of Hampstead) . . . That the name Lymington-road (in continuation) be approved for the new street.—Consent.

Wandsworth.—That an order be issued to Mr. F. Newman sanctioning the formation or laying-out of new streets for carriage traffic on the Streatham-lodge Estate, Streatham-high-road, Streatham, and in connexion therewith the widening of portions of Streatham-high-road, Hermitage-lane and Streatham-common-south (for Mr. C. H. C. Du-Cane). . . . That the names Braxted-road, Baldry-gardens (in continuation), Heybridge-avenue, Fontaine-street, Welldale-street, Tiptree-street, Coulthurst-street, and Strathbrook-road, be approved for the new streets.—Agreed.

Dwelling-houses on Low-lying Land.

Greenwich.—That the solicitor do prepare a licence under section 122 of the Act, to Mr. W. Richardson, for the erection of two buildings on low-lying land situate at Bostal-lane, Abbey Wood (Mr. J. O. Cook).—Agreed.

*** *The recommendations marked † are contrary to the views of the local authorities.*

Correspondence.

RE ANCIENT LIGHTS.

SIR,—Having seen in your issue of April 5 a report of a paper read by Mr. H. Chatfeild Clarke before the Bristol Society of Architects, on "Ancient Lights," may we ask if you could spare us a little of your valuable space to add a few remarks on the same subject.

We should like to add another instance from our personal experience to those already mentioned by Mr. Clarke, to emphasise the advisability of the revision of the law, as it now stands, regarding this important matter.

We refer to the case of Parker *v.* Stanley & Co., heard before Mr. Justice Farwell, and fully reported in your issue of February 15 last, in which case we were acting as architects for the defendants.

The Judge granted a mandatory injunction to pull down to the level of the previous building, because the plaintiff, being a photographer, required *special* light. This has now been done, greatly to the detriment of the premises. The Judge, in giving judgment, said (as reported in your paper) "he thought he should have found that for *ordinary* purposes there had been no such substantial diminution of light by the new building as to have justified him in granting such an order."

The judgment appears particularly hard, as the plaintiff's premises have only been used as a photographic studio since 1890, and therefore do not constitute an ancient special light.

Surely if it takes twenty years to obtain an ordinary right of light, it should take equally as long to obtain a special right.

We venture to think this is another instance of the urgent necessity for a reform in the laws of light and air. HAYWARD & MAYNARD.

CAUDEBEC-EN-CAUX.

SIR,—As a lover of Caudebec-en-Caux, which I have twice visited, would it be too much to ask Mr. Hornblower to publish his sketch?

Any one dispensing with frequent joints will, if he live long enough, prove the truth of what is said about the wisdom of frequent jointing of stonework. E. SWINFEN HARRIS.

BATTERSEA WORKING-CLASS HOUSES COMPETITION.

SIR,—Referring to the interesting collection of drawings in the above competition, it is pleasing to note that the first premiated drawings are in pencil and are done in a most workmanlike fashion. It is to be hoped that the time has now arrived that committees will stipulate in their instructions, (although this was not the case in the Battersea competition), that only pencil drawings will be required, which, as I stated in your issue of March 1, would be a benefit to committees and competitors, thus affording more time for the competitor to submit to a committee a much better thought-out set of drawings. ARCHITECT.

BOOKS RECEIVED.

GUIDE TO EPSOM AND THE DISTRICT. By Gordon Home. (Homeland Association. 9d.)

A PRACTICAL TREATISE ON BRIDGE CONSTRUCTION. By T. Claxton Fidler, M.Inst.C.E. (Charles Griffin & Co.)

ANNUAL RECORD OF THE LONDON TOPOGRAPHICAL SOCIETY: 1900. Edited by T. Fairman Ordish, F.S.A. (Published by the Society.)

THE LONDON MASTER BUILDERS' ASSOCIATION HANDBOOK: 1902. Edited by J. W. Ritchie. (Published by the Association.)

THE TESTING ARRANGEMENTS OF THE BRITISH FIRE PREVENTION COMMITTEE. Some descriptive notes and illustrations. (C. & E. Layton.)

QUARTERLY JOURNAL OF THE SANITARY INSTITUTE. With Supplement. (E. Stanford. Journal, 2s. 6d.; Supplement, 1s.)

SURVEYING AND SURVEYING INSTRUMENTS. By G. A. T. Middleton. Second edition, revised and enlarged. (Whittaker & Co. 5s.)

ARCHITECTURAL HYGIENE: OR, SANITARY SCIENCE AS APPLIED TO BUILDINGS. Second Edition. By Banister F. Fletcher, A.R.I.B.A., and H. Phillips Fletcher, A.R.I.B.A., A.M.I.C.E. "The Builder" Students' Series. (D. Fourdrinier: *Builder* Office.)

The Student's Column.

PART II.—DRAINAGE.

CHAPTER 16.—THE DESIGN OF DRAINAGE SCHEMES.

SOME of the most important points to be observed in the design of drainage schemes have been discussed in previous chapters, and the following rules are, in the main, a recapitulation of these points in a succinct form:—

1. Intercept every main drain from the sewer by means of a water-seal trap, fixed in an intercepting chamber or (in a small scheme) at the foot of a pipe shaft, the trap to be as near the sewer as possible.

2. In large schemes, divide the drains into main and subsidiary sections, the latter being intercepted from the former; this is imperative in the case of hospitals for infectious diseases.

3. Construct manholes at all changes of direction and gradient in main drains, and at all important junctions; it is a good plan to run all branch drains to junction-chambers, instead of using pipe junctions.

4. Lay every drain from manhole to manhole in a perfectly straight line both as regards direction and gradient; in short branch-drains a certain amount of curvature cannot always be avoided.

5. Adopt self-cleansing gradients wherever possible, not exceeding 1 in 12 for 4-in. stoneware drains, 1 in 17 for 5-in., and 1 in 23 for 6-in.; for iron drains the gradients may be quicker. If the amount of fall is inadequate, give the branch drains as much fall as possible and provide flushing apparatus for the main.

6. Regulate the sizes of the pipes according to the amount of sewage they have to convey, or as nearly thereto as the local by-laws allow.

7. Disconnect all waste-pipes (except those from water-closets, slop-sinks, and urinals) and all rainwater pipes discharging into sewage-drains, by means of suitable water-seal traps, and trap all surface-water inlets to sewage-drains.

8. Reduce the number of branch-drains and traps as much as possible by discharging two or more pipes into or over each gully: two or more waste-pipes, rainwater pipes, or surface-water gullies, at a short distance from each other, may often be connected by branch-drains, (ventilated at each end) to a single trap placed in a convenient position.

9. Ventilate every main and subsidiary drainage section by means of two openings, each approximately equal in area to the cross section of the drain, one opening to be near the intercepting trap and the other at the head of the drain; a soilpipe from a water-closet, slop-sink, or urinal may be used for one of these openings, but if such a pipe is not available, a special ventilation-shaft ought to be provided.

10. Drains must not pass under buildings, except where an external course is impossible.

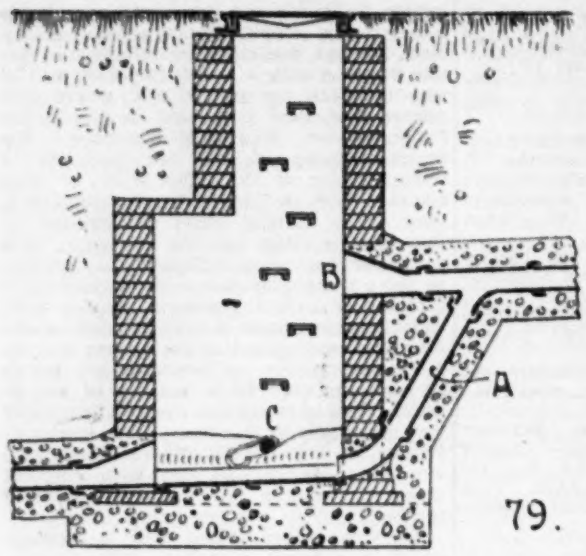
Many districts are now sewered on the "separate" system, that is to say, separate sewers are laid for sewage and surface-water respectively. If the Private Street Works Act, 1892, has been adopted, the Local Authority can compel a person laying out a new street to construct separate sewers, but there does not appear to be any law by which a building-owner can be compelled to lay separate drains. Few persons, however, are willing to enter into litigation with a Local Authority, and it may be taken for granted that, where dual sewers exist, dual drains will be laid by the building-owner. The great advantage of the separate system is that the discharge of sewage proper at the outfall works is more constant, both in quantity and composition, than when surface-water is admitted to the same conduit as the sewage; the process of purification or disposal can therefore be more thoroughly and more economically carried out. This argument applies with equal force to private sewage-disposal works. Another advantage is that the sewers may be of smaller capacity, as provision has not to be made for any large amount of storm-water. The surface-water conduits do not add very materially to the cost of a sewerage scheme, as they can usually be divided into a number of small sections with different points of discharge into the watercourses of the district.

The separation of surface-water and sewage is not in any case complete. Some portion of the surface-water, such as that from areas and back yards, is usually conveyed to the sewage conduit.

In the case of an isolated building or group of buildings, the sewage from which must be purified before its discharge into a watercourse, the separate system possesses distinct advantages. If rainwater is the sole or principal source of supply for domestic purposes, the separation of some portion of the surface-water from the sewage is a necessity. In such cases the rainwater from the roofs is usually conveyed by a separate system of drains to an underground tank, from which it is pumped to a cistern in the building. Sometimes a special catch-water area is formed with cement-concrete at some distance from the building, and the rain falling on this area is conveyed to a storage tank. As a rule, however, the roof of the building is utilised for the purpose, and two sets of drains—for sewage and rainwater respectively—must be laid. Unless these conduits are carefully designed, there is a danger of a sewage-drain being connected to the rainwater-drain. In one case, which was brought to the writer's notice, the rainwater was stored in an underground tank for domestic purposes, and gradually deteriorated in quality until it was unfit for use. After careful examination, it was discovered that the drain from the water-closet had been connected to the rainwater system! This was a new house, and if a mistake of this kind can be made during construction, it can certainly be made during subsequent alterations when the positions of the two drains have been forgotten.

Special care must be taken in the design of a drainage scheme when the rain-water is stored for domestic use. The sewage drains must be absolutely watertight, so as to avoid contamination of the soil, and ought to be of cast-iron, surrounded with concrete. Manholes are absolutely necessary at all changes of direction, so that the course of the sewage drains cannot possibly be mistaken or forgotten. Rain-water drains are usually constructed of stoneware, as iron soon corrodes under the influence of soft water. They ought to be surrounded with concrete, to prevent infiltration from manured gardens, and laid at a higher level than the sewage drains. It is a good plan to lay the rain-water drains further from the building than the sewage drains, the branches to the former passing *over* the latter. Manholes, with airtight covers, ought to be provided, so that the drains can be easily inspected and cleansed. The rain-water pipes will serve as ventilators. The overflow from the tank is often connected to the sewage drain; but where this is done aerial communication must be prevented by means of a well-ventilated intercepting chamber and trap.

The next point to be considered in the design of a system of drainage is the level of the sewer or other point of discharge. The invert of a sewer can usually be ascertained by taking levels at two adjacent manholes; the distance between the manholes must be measured, and the level of any intermediate point can then be calculated arithmetically or obtained graphically by plotting the longitudinal section of the sewer. The invert of the drain must be above the invert of the sewer; as a general rule, it may be said that the junction ought to be entirely above the lowest third of the height of a pipe-sewer. This leaves the mouth of the



79.

Illustration to Student's Column.

drain clear when the sewer is charged to its normal depth. If the inverts of the drain and sewer are at or near the same level, there is necessarily a certain amount of backwater in the drain, and this retards the flow and tends to produce deposits. A further disadvantage is that the drain may be entirely filled with backwater for some distance in the case of an abnormal flow in the sewer, such as may occur at certain hours of the day or during heavy rains, or as the result of sewer flushing. If, for example, a 4-in. drain with a gradient of 1 in 40 is connected to an 18-in. sewer in such a manner that the inverts at the point of junction are at the same level, the drain will be entirely filled with sewage for a distance of nearly 17 ft., when the sewer is half full, and the backwater will extend to a distance of 30 ft.; when the sewer is three-fourths full, the backwater will extend to a distance of 45 ft. up the drain, and of this length nearly 32 ft. will be fully charged. As the intercepting traps of house-drains are usually less than 25 ft. from the sewer, the sewage will, under such conditions, rise through the traps, and the drains above the traps will not only cease to be self-cleansing, but will also be charged with public sewage of a more or less dangerous character.

It follows from this that the intercepting trap ought to be placed at as high a level as possible above the invert of the adjacent sewer. The drain between the trap and the sewer will therefore often have a quicker gradient than the drains above the trap. At however low a level the sewer may be, the connexion ought not to be in the crown, as this arrangement often causes deposits, especially in branch sewers where the flow is small or intermittent.

Junctions with large brick or concrete sewers ought also to be above the level of the normal flow, and as the rise of the sewage is greater than in a pipe sewer, it is still more necessary to place the intercepting trap at as high a level as possible. Flap-valves of iron or (better) of aluminium are sometimes fitted to the ends of drains in sewers to prevent backwater, but they are not reliable, as deposits on the seating often cause the valves to remain slightly open. In Couzens's "ball trap interceptor" a copper ball floats in the trap on the drain side of the dip; the ball rises with the rise of the backwater, and ultimately seats itself against an indiarubber ring around the inlet of the trap. A fitting of this kind may be useful in low-lying districts, but should only be adopted where absolutely necessary.

If the difference in level between the head of the drain and the sewer is small, the junction may, with advantage, be placed at a point near that boundary of the site where the sewer is lowest. A sewer with a gradient of 1 in 200 falls 6 in. in a frontage of 100 ft., and these 6 in. may make a great difference in the efficiency of the drains.

In designing a system of drainage careful levels must be taken, not only of the sewer-invert, but also of the ground through which the drains must pass and (in the case of existing buildings) of the ground floor and basement floor and of all inlets. An accurate plan of the property must also be prepared to a sufficiently large scale, so that every gully, trap, manhole, and other accessory can be clearly shown. It is a great mistake to attempt to delineate a drainage scheme on a block-plan only, drawn to a scale of 30 ft. or 40 ft. to an inch. The drains are as important as any part of a building, and those in the immediate vicinity of a building ought to be drawn to the same scale, namely, 8 ft. to an inch. Long outfall drains may, of course, be shown on a smaller block plan.

The most direct course which circumstances will allow must be adopted from the head of the drain to the junction with the sewer. Circuitous routes are more costly and more difficult to ventilate, and in many cases necessitate smaller gradients and increased risk of deposits, which in turn involve fouler air in the drains. The fall from the lowest inlet to the sewer must then be ascertained from the levels, and if this is very small the drain between these points must be designed with uniform gradient throughout. If the fall is ample, different gradients may be adopted; (1) a quick gradient for the drain from the inlet to the junction-chamber; (2) a slower but self-cleansing gradient for that from the junction-chamber to the intercepting-chamber; and (3) a quick gradient for that from the intercepting-chamber to the sewer. Allowance must be made, wherever the fall will permit, for a drop from the branch to the main drain equal to half the diameter of the latter, and for a drop of 3 in. or more into the intercepting-trap. The depth from the surface of the ground to the invert of the gully outlet must, of course, be taken into consideration. This varies according to the type of the gully; for an ordinary 4-in. P trap it is about 7 in.

The gradient from the head of the drain to the junction-chamber receiving the drain from the lowest inlet can now be settled. If the lowest inlet is from the basement at the front of building, and if the other inlets are at or near the surface of the ground, a self-cleansing gradient can be given to the main drain from these inlets to the junction-chamber, and the connexion with the latter formed as shown in fig. 79. The sewage from the high-level drain enters the chamber through the pipes at A; a pipe or chute is fixed at B, so that the upper drain can be inspected and cleared in case of stoppage. The low-level inlet is shown at C. If the pipes at A are omitted, the sewage from the upper drain causes a great amount of splashing in the manhole, and the benchings and walls become coated with deposits which decompose and often cause a serious nuisance. A similar arrangement can be adopted at a lamphole. To inspect the lower drain, the lamp must be lowered to the bottom of the shaft and observed from the intercepting-chamber or nearest manhole below this point; to inspect the upper drain, the lamp must be lowered to the level of the pipe B, and observed from the next manhole above this point.

OBITUARY.

MR. THOMAS OLIVER.—We regret to announce the death on the 24th ult., in his seventy-eighth year, of Mr. Thomas Oliver, architect, of Newcastle-on-Tyne. Mr. Oliver was senior partner of the firm of Messrs. Oliver & Leeson, latterly Messrs. Oliver, Leeson, & Wood, of Bank-chambers, No. 30, Mosley-street, Newcastle-on-Tyne, and was elected a Fellow of the Royal Institute of British Architects in 1866. Of the more important of the architectural works carried out by the firm of Oliver & Leeson we may mention the following:—St. Barnabas Church, Dulwich (ten years ago); alterations, with new entrances and other improvements, of the Tyne Theatre, Newcastle; the Training College, Norwich (for which Ewan Christian acted as assessor), illustrated in the *Builder*, November 19, 1892; restoration of the tower and spire, St. Nicholas Cathedral, Newcastle, in 1896; laundries at Low Fell, co. Durham, for the Provincial Laundries Co., Ltd.; additions, with improvements, to ninety-two houses at Felling, Durham; the High School for Girls at Jesmond, for the Corporation of Newcastle; the new Technical College at Durham, since named the Johnston Institute of Science and Art, constructed in three stories of red brick, with a red tiled roof, and a main entrance in South-street of stone, and on the east side overlooking the wooded banks of the Wear, begun in July, 1899, and opened on May 22 last year (Messrs. Oliver, Leeson, & Wood); school buildings in Chester-road, Bishopswearmouth, for the Sunderland School Board, 1893-4; the car depôt and other works at Walker-on-Tyne, for the Newcastle City Tramways undertaking; cottage homes for pauper children at Ponteland, for the Newcastle Guardians (Messrs. Oliver, Leeson & Wood); and the Olympia Hall, Northumberland-road, Newcastle, constructed of corrugated iron lined with wood, with an iron-framed ceiling and a highly ornamented façade executed in plaster-work after the Italian manner, having a capacity for about 3,500 persons, and opened on December 2, 1893, for which the plans and designs were prepared by Messrs. Oliver & Leeson and Mr. T. R. Milburn, of Sunderland, as joint architects. Amongst other works for which the firm were employed as architects are, in Newcastle-on-Tyne, the Clarendon Temperance Hotel; the block of office buildings at the top of Dean-street, and in St. Nicholas churchyard; the Nurses' Home at the Fleming Memorial Hospital, opened three years ago, and the Co-operative Stores, both by Messrs. Oliver, Leeson, & Wood, who in May, 1900, were appointed architects for the re-building of the Ord Arms at Scotswood; in Gateshead—schools to accommodate 880 children, with a large gymnasium, cookery classrooms, a manual-instruction room, &c., at Kell's-lane, in the Low Fell district, for the School Board; the Parish Hall for the Venerable Bede Church, Sunderland-road; a church institute for St. Paul's, in the Low Teams; and the enlargement of the board schools in Durham-road (Messrs. Oliver, Leeson, & Wood); also the enlargement, recently begun, of schools at Westmoor and in the vicinity for the Long Benton School Board. In our issue of October 8, 1898, containing "Newcastle-upon-Tyne," No. xviii. of our series, "The Architecture of Our Large Provincial Towns," we illustrated Messrs. Oliver & Leeson's measured drawings of the spire of St. Nicholas, with their designs for the Co-operative Wholesale Society's new offices, warehouses, and Conference Hall, in Blandford-street, and for two blocks of business premises in Collingwood-street. On April 27, 1889, we illustrated the plans and designs for which the second premium had been awarded to them in the competition for the Friars' School at Bangor; in January, 1886, the firm were invited to send in competitive designs for the new infirmary buildings at Newcastle, in respect of which competition Mr. Alfred Waterhouse, R.A., was appointed the assessor. They themselves were nominated to act in that capacity, in 1891, for the Burnley Higher Grade Schools competition. From the *Newcastle Daily Chronicle* we learn that Mr. Oliver was the first Secretary to the Northern Architectural Association, founded in 1858, and that he retained that office until 1870, when he was elected President. In 1872 he took up the duties of Secretary again, and in 1877 was again elected President for three years. Mr. Oliver entered into partnership with Mr. Leeson in 1879. He died at his private residence, Ennerdale, Jesmond.

GENERAL BUILDING NEWS.

RESTORATION OF OLD BASFORD CHURCH, NOTTINGHAM.—The restoration of the parish church of St. Leodegarius, Old Basford, has now been completed. The foundation of the church goes back to the twelfth century, the founder being Sir William de Basford, the grandson of a retainer of William the Conqueror. But little remains of the thirteenth century edifice, the chancel, which was almost entirely demolished by fire a couple of years ago, being the oldest part of the fabric remaining. The church has had an unfortunate history within modern times. The tower collapsed about forty years ago, carrying with it the western bay of the nave arcade, and the neglect and vandalism of the latter part of the eighteenth century caused much of the architectural beauty of the church to be sadly impaired. Happily, the church has reaped the benefit, ere it was too late, of the growing appreciation of antiquities, and its later restorations have been conceived in reverence and artistic insight. The tower was rebuilt out of the old material, so far as it would go, in imitation of the graceful form of the fifteenth century, and other works of renovation were carried out from time to time as necessity dictated. But these were not of a sufficiently far-reaching character to assure the preservation of the church intact, and the attention of the Duke of Newcastle was drawn to the condition of the fabric. It was decided, in the first place, at once to arrest the decay brought about through damp and other causes, and this done, to make improvements in the general character of the church, such as the addition of a rood screen, a new reredos, panelling around walls, &c. The first portion of the scheme had only just been completed when this work, together with a great portion of the entire building, was destroyed by fire in November, 1900, thus necessitating the restoration of the roofs, the re-building of the chancel arch and a portion of the nave arcade, together with other parts destroyed. Advantage was now taken to make further improvements. The roof as newly constructed improves the general effect and acoustic properties of the building. The reconstruction of the arcade and

chancel arch has been carried out in accordance with the old work, similar stone to that previously used having been secured. New stained glass windows, replacing those destroyed, have been supplied, and are from the studio of Mr. E. J. Prest, London. The subjects are similar to those in the windows destroyed. The new organ is from the works of Messrs. Henry Jones & Son, London. The case designed by the architect is in harmony with the rest of the woodwork in the church. Not the least of the improvements is a new vestry, of which, before the fire, the church was devoid. The flooring is entirely new, being composed of a 6-in. bed of concrete over the whole area, covered with wood blocks, and having stone aisles. The decorations generally have been supplied by Miss Beatrice Cameron, of London. The period of design chosen for the wood fittings generally is that of the fifteenth century. A new cover for the font has been carved. All the work of restoration has been carried out under the direction of Mr. W. H. Thompson, the Duke of Newcastle's architect, the contractors being Messrs. George Hopewell & Son, of Basford.—*Nottingham Guardian.*

WESLEYAN CHAPEL FOR BRADLEY.—The foundation-stone has just been laid at Bradley of a new Wesleyan chapel. The estimated cost of the new edifice is 4,600*l.* The building, which is in the Gothic style, will accommodate, when finished, 620 persons. The architect is Mr. C. W. D. Joynson (Wednesbury), and the builder Mr. W. G. Lees (Darlaston).

RESTORATION OF PAISLEY ABBEY.—A dedication service was held in Paisley Abbey, on the 24th ult., in connexion with the formal reopening of the church on the completion of the first stage in the Abbey restoration scheme. The general scheme provides for the restoration of the choir, the transepts, and the central tower, and in the meantime the first section of the tower and the transepts have been finished, whilst the old St. Mirin Chapel or sounding aisle has been opened up, and a temporary organ chamber has been placed at the entrance to the choir. It has been the aim of the architect, Dr. Rowand Anderson, of Edinburgh (says the *Glasgow Herald*), to have the restoration work so carried out as to be in unison with the existing nave and the old ruined portion of the edifice. The transepts, of which but a ruined gable was all that had remained, have been admirably restored and brought within the church proper, and an excellent harmony has been attained in their junction with the nave. An impressive appearance has also been given to the transepts by the stained-glass windows which have been placed in them. There are three of these windows. The restoring of the first section of the central tower has been a work of great magnitude. Every precaution has been taken to make the foundations thoroughly secure. Then the tower rises from four massive piers connecting the choir and the nave, and the first section, 40 ft. square, has been carried several feet above the roof of the main building. Owing to the formation of the tower piers, four arches have been formed between the pillars, the ceilings being groined, whilst the ceilings of the connecting transepts are of carved woodwork. By the restoring of the transepts additional space has been obtained in the nave, and the sitting accommodation of the church has been altogether increased by about 400. Advantage has been taken of the improvements to introduce the electric light into the edifice; but the new pulpit, communion table, chairs, and lectern were not ready in time for the opening ceremony. The work so far completed has been in progress during the past three years, and has cost fully 20,000*l.*

PENN CHURCH, BUCKS.—The question of the restoration of the tower and roof of the ancient parish church at Penn, in Bucks, engaged the attention of a vestry meeting recently. A report was received from Mr. S. Stallwood, Diocesan Surveyor, which showed that a sum of 500*l.* was necessary so far as the roof was concerned, and an additional expenditure of 300*l.* was needed to repair the tower. An estimate had previously been obtained from a local contractor for the repair of the roof only at 90*l.*, and as there was such a wide difference in the figures the vestry decided to call in a third opinion before applying for a faculty.

NEW BUILDINGS IN ABERDEEN.—The Plans Committee of Aberdeen Town Council report having sanctioned the following plans:—Dwelling-house on the west side of Fonthill-terrace, for Mr. Edmund Barrie, per Messrs. Sutherland & Pirie, architects; three dwelling-houses on the north side of Great Western-road, for Messrs. Storie, Cruden, & Co., per Messrs. Cameron & Watt, architects; dwelling-house on the north side of Hammerfield-avenue, for Mr. William Walker, per Mr. James Watt, architect; dwelling-house on the west side of Roslin-street, for Mr. John Reid, per Mr. William Smith, architect; two dwelling-houses on the north side of Carlton-place, for Mr. T. W. Hector, per Mr. George Anderson, architect; warehouse on the east side of Russell-road, for Messrs. Barclay, Ross, & Tough; four dwelling-houses on the north-east side of Forest-avenue, for Mr. J. D. Mackie, per Messrs. W. Henderson & Son, architects; three dwelling-houses on the north side of Devonshire-road, for Mr. James Dey, per Mr. John Milne, architect.

SUNDAY SCHOOLS, EAST TEIGNMOUTH.—New Sunday schools are being erected adjacent to St. Michael's Parish Church. The architects are Messrs. J. W. Rowell & Sons, of Newton Abbot, and Mr. E. Andrews, of Teignmouth, is the builder. The building is to be 60 ft. by 34 ft. The classroom will be 24 ft. by 14 ft., and the retiring-room and lavatories 10 ft. by 8 ft. The building can be entered by the porch through the class-room. It is to be of red brick, with dressings of white brick and Beer stone. The roof will be partly open-timbered, and the internal woodwork all stained and varnished. It is proposed to heat the building by hot water on the high-pressure system of Messrs. Longbottom & Co., of Leeds. The schools are to cost from 1,500*l.* to 1,600*l.*

BRECHIN CATHEDRAL.—Brechin Cathedral has just been reopened after restoration. Mr. Honeyman, R.S.A., of Messrs. Honeyman & Keppie Glasgow, has acted as architect. The last service in the old church, as it then was, was held about the middle of January, 1900, and the dismantling of the edifice was forthwith commenced. The chancel, which had stood partly in ruins for centuries, was put right, the part awanting being rebuilt in accordance with the style of those parts remaining. The chancel arch was opened out and shown as it was in centuries gone by, the galleries were removed, and the notched columns inserted and the plaster removed. The aisle walls have been rebuilt of the proper height, and the roof carried up to the proper position, thus once more laying open the clerestory windows and cornice, while the whole was roofed in — both aisles and nave — with an open roof of pitch pine, while a small gallery has been erected at the west end, on which has been rebuilt the organ on a modern principle. The organ loft and choir gallery is of unstained oak, while the pews in the area of the church are of pitch pine; the seats of the chancel being of a more ornate design, and constructed of oak, of which material is also the roof of the chancel. Consequent on the removal of the galleries and the renewing of the pews generally, the seating accommodation was greatly reduced, and in order to compensate for this to some extent, the architect erected an additional aisle on the north side, in the position where the north transept should be. This will accommodate about 120 sitters. It is an entire addition and departure from the original church, and in order to show and accentuate this, the style is entirely different, being of a later date. A south transept has also been added for increased sittings, the style being also Decorated Gothic, as distinct from the Early English of the original portions of the cathedral. The whole of the floor of the nave and aisles has been laid with pitch-pine blocks, embedded in pitch on a sub-bed of concrete, which will ensure comfort and freedom from damp. The open area of the chancel, as well as the space in the end where the high altar stood, but now occupied by the communion-table, are floored with mosaic work, and the body of the church is heated by a hot-air system, while the whole building is lighted with electricity. A north porch has been erected of ashlar, in the same position as the ancient porch had stood; in fact, in digging for the foundation, the workmen came upon the foundation of the ancient structure. This porch will form the principal entrance to the church, the others being by the north aisle, south transept, and great west door. The organ has been entirely re-cased; an oak pulpit and lectern, in keeping with the style of the church, has been erected; and a baptismal font of Corrennie granite has been placed in the building. The whole of the chancel windows have been filled in with stained glass. The east window of the south aisle and the east window of the north aisle have been filled with stained glass. The rest of the windows are in cathedral glass. The whole of the contracts have been carried out by the following, under Mr. Charles Grant as clerk of works:—Mason, J. H. Whyte & Sons, Glasgow; woodwork, Hutcheson & Grant, Glasgow; glazier, J. Meikle & Son, Glasgow; slater, John Davidson, Brechin; plumber, Geo. Cuthbert, Brechin; painter, J. C. Middleton, Brechin; heating, John Grundy & Co., London; electric fittings, Lowson & Son, Dundee; organ, J. R. Millar, Dundee.—*Aberdeen Journal.*

MISCELLANEOUS.

PROFESSIONAL AND BUSINESS ANNOUNCEMENTS.—Mr. Albert Hildesheimer, fine-art publisher and colour-printer, has removed to new offices and warehouses at 33 and 34, Shoe-lane, E.C., his old premises in New Zealand-avenue having been destroyed in the recent fire in the Barbican.——Mr. Edward Dodd, civil engineer, of 37, Waterloo-street, Birmingham, has taken his brother, Mr. R Parker Dodd, into partnership, and the firm will practise under the style of Messrs. Dodd & Dodd, civil engineers, at the above address.——The Builders' Benevolent Institution have removed their offices to 31 and 32, Bedford-street, Strand, W.C.——Mr. H. W. Rising, architect and surveyor, of 30, Great James-street, Bedford-row, has dissolved partnership with Mr. Shoebridge, and will henceforth carry on his practice at the above address under the style of H. Whiteman Rising.

PENZANCE WATER SUPPLY.—At Penzance, on the 22nd ult., Mr. M. K. North, M.Inst.C.E., Local Government Board Inspector, held an inquiry into the application of the Corporation for permission to borrow 6,000*l.* for waterworks, 1,000*l.* for public walks and pleasure grounds, 360*l.* for purposes of street improvements, 300*l.* for the provision of a disinfecting apparatus, and a building to contain the same on the hospital site in St. Just-road, and 540*l.* for a landing stage. Mr. F. Latham is the Borough Surveyor.

A CORRECTION.—In our Note on the James Forrest lecture, p. 414 *ante*, the mistake "entectic" escaped notice. It should, of course, have been "eutectic."

CHANCEL SCREEN, LONGSTOCK CHURCH, HANTS.—A chancel screen of carved Hampshire-grown oak has just been placed in Longstock Church. Resting upon the chancel step, the new screen is divided into five distinct compartments, the central one forming the actual approach to the chancel. This is gabled, the gable rising through and above the cresting and carved cornice, and terminating with a large cross. Each bay is gabled, the latter in their turn crocketed and cusped, having pinnacles dividing each respective bay. The work has been carried out by Messrs. H. Hems & Sons from the designs of the late William White, F.S.A., the architect of the church.

THE HOMELAND ASSOCIATION.—We have several times reviewed the charming little books on local scenery and objects of interest published by the Homeland Association. We are pleased to record that on their sending to the King a copy of their book on the Scilly Islands, after his recent visit, his Majesty has not only accepted it, but has expressed his wish to receive all further "Homeland Handbooks" to be issued by the Association. It seems very fitting that the Sovereign should thus encourage an Association which is promoting a better acquaintance with the beauties of our own country.

HOW TO CORRECT PROOFS.—Messrs Blades East & Blades, printers, send us a small pamphlet under the above title, in which the accepted methods of correcting every kind of mistake on a proof are illustrated by facsimile examples. It would be very useful to many persons who do not know how to correct proofs in such a manner as to be immediately intelligible to the printer.

MUNICIPAL AND ALLIED FOREMEN'S INSTITUTE.—This Institute has been founded for supervisors, clerks of works, inspectors, and foremen engaged in municipal work in the following branches: Masons, paviors, sewermen, tramway layers, gas, water, electric light, dusting and slopping, and any other branch of municipal work. Each candidate must have been, at the time of election, for a period of at least twelve months a supervisor, clerk of works, or foreman of men, and in the receipt of not less than 2*l.* per week. At the last meeting more than thirty new members were enrolled, bringing the total up to 150. We understand that it now includes most of the leading municipal and contractors' foremen in London, whilst the society's objects—principally those of mutual help—have also appealed to road and other foremen in the provinces, many of whom have now joined the Institute. It is intended to approach the chief surveyors of the metropolis with a view to their becoming honorary vice-presidents. Mr. D. E. Walsh, of 90, Lenthall-road, Dalston, is the secretary.

CEMENT IN THE UNITED STATES.—The reports for the year 1901 just received by the Foreign Office from Mr. Wyndham, British Consul at Chicago, and from the Vice-Consuls at St. Louis, Kansas City, Omaha, and Denver City, all contain references to the cement trade. Mr. Consul Wyndham's report is, as might be expected, by far the most exhaustive, and his view of the subject may be said to cover, in some respects, the whole of the United States. It is therefore worthy of being quoted from at some length. Very little imported cement (observes the Consul) "is now used in Chicago and the surrounding country, although occasionally a contract calls for British Portland cement, when it has to be ordered specially. The import duty is 6d. per 100 lbs. The supply of cement manufactured in the neighbouring States is very large, and is still increasing. Much of the cement used in Chicago comes from Michigan and Indiana, but there are in this consular district cement works in Illinois, Kansas, and Colorado, not to mention two that are building in Missouri. Besides these, the Illinois Steel Works manufacture cement made of specially selected slag from the blast furnace. This is roasted, put into the open air to free itself of lime, ground to a very fine powder, and mixed with the necessary chemicals. Great care has to be taken in the burning or roasting, and a cement that is claimed to be as good as any made is produced and is sold delivered in Chicago for about 5*s.* 6*d.*, in barrels or sacks, per 380 lbs. net. Pennsylvania and New York works supply the Eastern demand at 3*s.* 6*d.* to 4*s.* per barrel at the mills. Kansas, Michigan, Indiana, and Illinois mills supply the central part of the States, charging 4*s.* 4*d.* to 4*s.* 9*d.* at the mill, while the Colorado mills get higher prices owing to the distance from other works and the cost of freight; these prices do not include barrels, for which a charge of 1*s.* 3*d.* is made, but if the 380 lbs. net of cement is put in bags no extra charge is made provided the sacks are returned. The United States' Geological Survey reports that a mixture of 100 parts cement rock, showing 69·24 per cent. carbonate of lime, and 42·8 parts of limestone, having 40·38 per cent. carbonate, making 76·7 per cent. carbonate, is most satisfactory. To obtain this very fine grinding it is necessary to make the

percentage of insoluble matter as low as possible. In 1899 the product of Portland cement manufactured from marl and limestone was 3,711,220 barrels roasted in rotary and 1,941,046 barrels in vertical kilns. Much expense is saved by the rotary kiln. Natural rock cement production by seventy-six works was 9,808,179 barrels, valued at 2s. per barrel. The annual consumption in the United States is estimated at over 17,000,000 barrels, of which 8,000,000 barrels are Portland, 2,000,000 barrels of the latter being imported. That was in 1899, but in 1901 imports fell off one-half. Two brands of imported cement — one Belgian and the other German—are used to some extent, and fetch from 11s. 4d. to 16s. 6d. per barrel. These cements are made from slag, and are known as non-staining cement, being free from oxide of iron. The American cement is ground as fine as flour, and it is said that the coarse grinding of British cement is a great obstacle to its sale, even if prices were the same. In some buildings which are being made with cement, a wire netting erection is put up first and the cement laid round it. This is said to increase the strength of the building 100 per cent. A machine for turning out blocks of cement for building purposes has been worked lately in a town near Chicago. These blocks are made hollow and plain or ornamented as required." Mr. Wyndham adds, incidentally, that great deposits of gypsum, which are shipped to Chicago from Michigan for plastering houses, are now being worked, and enormous quantities, mixed with old rope, will probably be used in 1902 for the exhibition buildings in St. Louis. Mr. Western Bascome, Vice-Consul at the latter place, remarks that "Portland cement used to be dealt in largely ten to fifteen years ago, but the increased production of American manufacturers has cheapened it so that it will not bear the duty and heavy transportation charges. It sells retail at from 6s. to 7s. per barrel, and manufacturers cannot lay it down here at a profit. If it could be laid down at a profit under the retail prices quoted a good business might be done in it whilst the buildings of the World's Fair and the necessary walks are being made, but the American output is increasing so largely that I do not think the business would be permanent. A large plant now building in this city will soon be in operation." The Vice-Consul at Kansas (Mr Young) agrees that Portland cement does not make a satisfactory return, and that for some years there has been a falling off in the importation, but he adds, somewhat paradoxically, "It would seem that this trade might be well pushed." The laconic comment of the Vice-Consul at Omaha is that "English Portland cement is not saleable, because the price is too high; the American article appears to satisfy requirements as to quality, and is considerably lower in price." Mr. Vice-Consul Pearce, of Denver, writes: "The consumption of Portland cement in the State during the past year was about 200,000 barrels, and not over 10,000 barrels of this quantity was imported, only a small portion of the imported being from the United Kingdom. A cement factory was erected in the State early in the year, and this factory, with one in the adjoining State of Kansas, has supplied the Colorado demand. It is stated that the home-manufactured product is nearly equal in quality to the imported. The prices are, for the imported, 3 dols. 25 c. (13s. 9d.) per barrel, and for the domestic, 2 dols. 25 c. (9s. 3d.) per barrel."

SCOTTISH BUILDING TRADES FEDERATION.—The half-yearly meeting of the Scottish Building Trades Federation was held in the Station Hotel, Perth, on the 25th ult. Mr. Robert Lamb, builder, Edinburgh, the President, occupied the chair. Members were present from various parts of the country, including Glasgow, Edinburgh, Dundee, Aberdeen, Perth, Stirling, Kilmarnock, Inverness, Coatbridge, &c. The secretary (Mr. Jas. L. Selkirk, Glasgow) submitted the report, which detailed the work being carried on by the executive during the past six months. The various subjects referred to therein were severally considered and discussed, and a number of resolutions were come to in regard to future operations. These have reference to organisation, trade disputes, making by-laws, conditions of contracts, builders' journal, finance, &c. A resolution was arrived at to render the Federation a still more efficient and serviceable instrument for the promotion of the various bodies for the furtherance of which it was instituted. A national deputation from the National Association of Building Trades Employers of Great Britain and Ireland attended and addressed the meeting in encouraging terms. The terms of the report, so far as it refers to trade disputes, are as follows:—The somewhat depressed conditions of trade generally, and of the building trade in particular, during the past year or two, accounts for the general absence of trade disputes. Where the operatives have felt they were in a position to maintain their ground they have done so successfully. Where the circumstances were otherwise they have been ready to confer and arbitrate, and in doing so they must have felt that their interests were perfectly safe. The old difficulty still, unhappily, prevails. The operatives for the most part insist on an annual agreement being entered into at a period of the year which is most suitable for them, but very unsuitable for the employers. This largely explains why the standard rate of wages is often maintained above the normal condition though work may be slack, because the rate was fixed at a period when the employers were practically helpless. The unfairness of such a state of matters must be as obvious to the operatives as to the employers, but it is meantime allowed to continue because organisation is not so complete on the one side as on the other. The day cannot surely be far distant when this great anomaly will come to an end.

A PIECE OF AMATEUR BUILDING.—The members of the South London Methodist Church in Paradise-road, Clapham, have been doing a spirited piece of work in building their own Church House by the labour of their own members, merely purchasing the materials. Nothing was paid for labour, which was all voluntary. A retired bricklayers' foreman drew the plans, an engineer of the congregation laid the drains, and the treasurer did the bricklayer. A well-known architect, who went to see it, testifies that it is very good and solid work.

CHURCH OF THE HOLY INNOCENTS, HAMMERSMITH.—A carved walnut triptych has just been erected in the Lady Chapel of this church. The side wings contain bas-relief statues of St. Claire and St. Helen. The centre panel is a painting in oils depicting the adoration of the Magi and Shepherds, with raised gesso backgrounds. The work was executed by Messrs. Taylor & Clifton, of London, W., from designs of the Rev. Ernest Geldart.

MAIDSTONE BUILDING TRADES' ASSOCIATION.—The members of this Association dined together recently at the Bull Hotel, under the chairmanship of Mr. R. Avard (President of the Association), Mr. W. F. Wallis (Vice-President) facing him at the other end of the table. The toast of "The King and the Rest of the Royal Family" having been loyally honoured, the Chairman proposed "The Imperial Forces," coupled with the name of Major Oliver, who replied. Mr. West then proposed "Success to the Maidstone Building Trades' Association." He thought they had everything in their favour at Maidstone for forming an organising centre for the South-Eastern District Federation. Their Vice-President (Mr. Wallis) was one of the most active members of the trade in promoting that movement. They had reason to congratulate themselves upon the very successful issue to which they brought the dispute over the question of hours in several trades last winter. They at Chatham followed the trend of that dispute very carefully because in a measure they were labouring under the same difficulty in the winter. The step taken at Maidstone was one in the right direction, and he had given notice to the Chatham Association that he would propose the adoption of the same rules for that district.—Mr. Wallis, in reply, said he had always taken a deep interest in the Association. He recognised that they were not so well organised as the workmen, and they had the architects also with their well-organised Institute. The workmen's organisation was exceedingly well managed, and they had enormous funds and knew how to use them. Although they (the builders) were organised locally and had carried their point with a certain amount of success, they wanted to be fully respected by the men, and therefore should form a larger organisation, and with this view he went somewhat strongly into the idea of the federation of the Southern Counties. He was sorry it had not been taken up generally with the enthusiasm it deserved. The workmen's union, however, only had small beginnings, and he was not without hope that their own Federation would in time develop into proportions that would command the respect of both sides. The great stumbling-block was the question of finance. The workman, very much more alive to his interests than the employer, put by a considerable percentage of his earnings, placing them in the hands of his society, and the builders ought to make up their minds to do something similar, and consider it as an insurance fund. If they put by a corresponding amount to their insurance, they would have greater freedom from trade disputes. Apart from the men, the Federation would give them a better status with the architects and surveyors in dealing with the forms of contract they were sometimes called upon to sign. The speaker suggested the formation of an association amongst the towns in the centre of Kent on similar lines to the association for the insurance of the employer against accidents to the workmen, with a reserve fund to deal with disputes.—Subsequently, the toast of "The Architects and Surveyors of Maidstone" was proposed by Mr. Wallis. Mr. Smith, in reply, said he believed the building trade stood at present on a higher level than ever it did. It had often been remarked that they could not put up buildings nowadays such as the ancients did. He did not agree with people who said so, but he believed in the fact that the fittest had survived. They had with them now examples of true and honest work, but those examples were few and far between. What had become of the ordinary buildings of past centuries? They had gone with the centuries. The ordinary dwellings of the people, the work that was put up to serve the purpose of the time, had gone, and the monumental buildings alone remained. He believed the percentage that would remain after their day would be far greater than the percentage of buildings which had survived past ages. There was work they would not like to last as examples of what was done at the end of the nineteenth and beginning of the twentieth centuries; but there was good honest work that would compare with any in the world, and it was upon that they would pledge their reputation.—For "The Town and Trade of Maidstone," proposed by Mr. Cox, Mr. E. Vaughan replied.—Mr. R. Corben proposed "The Visitors," and Mr. B. Smythe responded.

HOUSING CONFERENCE AT NEWCASTLE-ON-TYNE.—A conference to consider the question of housing reform was held on Saturday last week in Newcastle-on-Tyne, under the auspices of the northern section of the Co-operative Union, the National Housing Reform Council, and the Durham and Northumberland Land and Labour Committees. Representatives were present from these two bodies and from local authorities and trades' councils in the two counties. The Mayor of Newcastle (Mr. H. W. Newton) presided, and explained the local endeavours which had been made to deal with the problem. Some years ago the Corporation prepared a scheme of single tenements at the east end, where people lived who were making from 16s. to 18s. a week. They wanted to provide these people with a room at a rent of from 2s. to 2s. 6d. a week, and proposed a scheme which provided a large room, partitioned off, with plenty of room for ventilation. But the Local Government Board objected to the scheme on the ground of public morality. The Council now proposed to erect buildings of one and two rooms in the centre of the city, the rent being 2s. 6d. for one room and 4s. for two rooms. In seconding a resolution in favour of municipal garden cities and increased powers of purchase of land, Dean Kitchin said that the one question at the base of the matter was the abominable condition of the Land Laws of England. The real difficulty was to get the whole of the land in such a way as would enable them to make a proper use of it for the good of the people. One of the worst things that had happened in the counties of Northumberland and Durham was that among the miners the houses had not been built in a more attractive manner. He did not think they would be able to do very much in existing towns in the way of improvement, because of the manner in which the value of ground had risen in recent years, enabling the landlords to fill their pockets at the expense of the hard work of the men in the neighbourhood. The tendency of towns was to produce a second-rate type of men and women. The only remedy was to get the men and women away from the towns and put them in decent houses in healthy surroundings.

CAPITAL AND LABOUR.

LEEDS BUILDING TRADE RULES.—Amended rules have come into operation in two branches of the Leeds building trade. Short time is to commence in future eight weeks before and finish six weeks after Christmas. On the question of overtime, the masters proposed that the rule should read:—"That all overtime after the first two hours and Bank Holidays be paid for at the rate of time and a half, and double time for Sundays and Christmas Days." The men, however, are to have time and a quarter for the first two hours. The remainder of the rule stands.—*Leeds Daily News.*

LEGAL.

A BRICKLAYERS' LABOURER'S ACTION FOR PERSONAL INJURY.

THE case of Purvis *v.* the Newcastle-on-Tyne Co-operative Society came before the Court of Appeal, composed of Lords Justices Vaughan Williams, Romer, and Mathew, on the 29th and 30th ult., on the application of the plaintiff for judgment or new trial on appeal from a verdict and judgment at trial before Mr. Justice Lawrance and a jury at Newcastle-on-Tyne in February last.

In this case the plaintiff, William Purvis, a bricklayers' labourer, sued the defendants for damages for personal injury caused by the negligence of the defendants' servants. The defendants denied liability and urged contributory negligence on the part of the plaintiff.

It appeared from the statement of Mr. Scott-Fox, K.C. (with him Mr. Meynell), for the appellant, that at about 9.30 on the morning of June 24, 1901, the plaintiff, who was about forty-two years of age, was in Darn Crook, Newcastle-on-Tyne, where the defendant society were erecting new premises. Standing outside those premises was a cart belonging to the defendants, which contained stones. With this cart was a man named McNally, who was a member of the Union of which the plaintiff was a delegate, and to whom the plaintiff wanted to speak. The stones in the cart were being pulled up to the top of the building by means of a crane and a single chain. McNally sent up a load of the stones, and turned to talk to the plaintiff. Suddenly one of the stones fell, and came down in two pieces. One half nearly killed McNally, and the other half struck the plaintiff, inflicting serious scalp wounds, a broken hip bone, paralysis of the right side, and other injuries which would probably incapacitate him from work for the rest of his life. The plaintiff's case was that the accident occurred through the negligence of the defendants in not sending up the stones in a double sling or in an ordinary wooden

carrier. The defendants denied negligence in the matter, and at the trial called evidence to prove that before the stones were hoisted warning was given. The jury returned a verdict for the defendants. The learned counsel said it might be taken that the jury by their verdict found that the plaintiff had been guilty of contributory negligence. He submitted that there was no evidence before the jury to justify them in finding that the plaintiff had been guilty of any negligence at all. Practically the only issue for the jury was whether the defendants were guilty of negligence, and his contention was that they were.

Without calling upon counsel for the respondents their Lordships came to the conclusion that the learned Judge had not misdirected the jury, and that there was evidence to go before the jury that the plaintiff had been guilty of contributory negligence. The appeal was accordingly dismissed.

RECENT PATENTS:

ABSTRACTS OF PATENTED INVENTIONS.

22.—BRICKMOULDING MACHINERY: *L. Ingham and B. Langton.*—An extension machine for moulding radial, tapered, and other bricks has the side-plates of the mouthpiece set upon pivots so that they shall turn outwards as the brick is being moulded, and the plates are held in place with side-rollers that are moved in slotted guides with slotted levers which are pivoted on to a crossbar. At the sides of the cylinder are slotted brackets, on to which are bolted the guiding-bars, that have slots to take studs or bolts upon the outer ends of the levers. The face of a die or abutment-block is curved, bevelled, or straightened as may be required. A knife which is hinged to a bar pivoted to a slotted bar in front of the cross-bar cuts off the brick at the mouthpiece; and a piston, worked with a screw, toothed wheels, and endless bands, feeds clay into a cylinder.

32.—A GUARD FOR WOOD-WORKING MACHINES: *A. Cook.*—A guard for the cutter of a planing or moulding machine, having a vertical spindle, consists of a cylinder fashioned in two halves, whereof the one is to be turned out of the way by turning it against the action of a spiral spring mounted upon a vertical axis at the end of a radial arm, whilst the other half is similarly turned upon a horizontal axis upon the radial arm. A rod, an arm, and the radial arm join the guard adjustably to the standard to which the latter arm may be fastened with a bolt and a slotted quadrant. Confer also Nos. 1,375 of 1899, and 14,496 of 1900.

59.—A GUARD FOR CIRCULAR SAWS, WOOD-PLANING MACHINES, &C.: *T. Lees, R. Lees, and W. Lees.*—The guard plate, which in the case of a circular saw may consist of two parts, is carried at the end of a radial arm which is pivoted on to the horizontal arm of the standard. The wood is pressed in its advance against a wheel upon the radial arm so as to lift the guard-plate from the revolving cutters. The guard will resume its former position when the wood has been passed forwards.

72.—A STREET-CLEANING MACHINE.—*R. C. Menzies.*—The frame sustains a receiver which is joined with clips to the curved wheel axle and shafts or handles, and reposes upon a plate; pivot-pins, mounted upon arms are to be inserted into holes cut in a projection piece, on the arms is a scoop; the chain that maintains the receiver in its position is unhooked when the filled receiver is to be emptied or shifted for an empty one.

105.—PRESSURE OR TEMPERATURE REGULATORS: *L. H. Dugenait.*—The principle of the invention is applicable to reservoirs, ventilating contrivances, furnace dampers, and so on. For the automatical regulation of temperature a circuit is closed or opened by means of a maximum and minimum thermometer, the armature of the electro-magnet enables, as it moves, a train or similar gear to work a rod which is joined to the register or valve of a furnace or to a cold-air valve. The metallic rim of the insulating-disc of the regulator makes contact with the brushes and is joined to the metallic arm of a spindle. As the armature is attracted the wheel turns, and a shaft drives the valve or damper gearing. A double U-shaped pressure-gauge filled with mercury and hydrogen or nitrogen may replace the temperature gauge, and for the thermometer may be employed a coiled bi-metallic spring. In another form the electro-magnet is used only for bringing a motor into action in a relay circuit, whereby a number of ventilators may be worked by power, or the disc may be set to work three-way cocks, the amount of fluid to and from the pressure cylinder being thus regulated.

138.—A GAS-REGULATOR: *H. Cooney and W. A. Tilling.*—A cord and some adhesive material fasten a flexible diaphragm on to a ring, which is joined to the casing and is passed around a ring of white metal that is soldered to the other ring. The diaphragm is joined with a screw to a double-coned hollow equilibrium-valve, which has a middle pin for its guide, and has its upper part more inclined than is its lower part.

151.—A MITREING APPARATUS: *F. Kaiser.*—The inventor enables an adjustment to different heights and angles of the table and the saw-guides. He passes the saw through slots in telescopical rods which carry friction-rollers that guide the back of the saw-frame, and he pivots the saw-supports upon a horizontal axis, and also upon a vertical axis at the middle of the crossing rail. Pawls, or catches, hold the frames when adjusted at the angles required, and slotted standards adjust the varying height of the table.

177.—APPLIANCE FOR USE WITH BORING MACHINES: *C. Walton.*—For feeding the drill-spindle, the nut is held or retarded so as to control the feed, or is left free to arrest the feed, by means of a feed-nut that is placed within a block and a pinching-screw; the latter may consist of a split clamp to be tightened on to the nut. For a quick withdrawal of the feed-screw the nut is formed in two halves, and it can be taken out of the socket together with the feed-screw by a slackening of the pinching-screw.

191.—A CONTRIVANCE FOR BRICK-MOULDING MACHINES: *W. A. Bowie.*—The inventor seeks to prevent damage being done to the edges and sides of the bricks by means of a mould that has sides and a cover or lid pivoted on to a frame so that they shall turn outwards for liberating the moulded brick.

221.—APPLIANCES FOR WINDOW FRAME AND HINGED SLIDING SASHES: *B. Hausmann.*—In order that they may clear the beads when the sash is turned inwards, the hinge flaps are cranked, whilst the concaved flanges of the flaps are caused to slide in a curved guide affixed to the pulley-stile. An extension of the flap has a hooked lever for engagement with a hooked plate in the pulley-stile, providing for a support of the opened sash above the sill. As one turns the sash back within the frame, the contact of the hinge-plate with the tail piece of the lever forces the lever out of play against the force of gravitation or of a spring. A serrated eccentrical roller, which retains the inside bead in its position, is mounted upon a yoke frame whereof the pin enters a socket-piece in the upper portion of the pulley-stile. The pin will be held in its place by means of its lug that slides in a slot and a rounded groove cut in the socket. At the end of the sash-cord is a loop for engagement with a hook in the groove of the sash-stile. On swinging the sash inwards one can easily detach the loop.

275.—SWITCHES FOR ELECTRICAL LAMPS: *C. W. S. Crawley and W. L. Madgen.*—The lifting and lowering of the lamp, for which a spring or weight may be substituted, will work the switch; in the case of a ceiling-rose a tube, having for its guide a lug that slides in a slot, is caused to slide upon a tube affixed to the base, a catch upon the tube will pass into a hole in the fixed tube when it has been drawn downward against the action of a strong spring; an incline for freeing a catch is mounted upon an inner tube, which is joined with a rod to the lamp or the weight; on the sliding tube is a contact-ring, and when the tubes are pulled down the circuit becomes completed; a spring raises the inner tube when the lamp is lifted, and frees the catch, thereupon the spring will raise the sliding tube and contact will be broken.

280.—A PIPE-WRENCH: *A. Heberer.*—One of the shanks upon the jaws is extended so as to form the handle—the shanks being joined with pivoted bars and a loop, a cross-bar or pawl of the bars engages with teeth upon the outer side of the other shank, or, in a variant shape, a wedge is inserted and teeth upon the inner side of the shank will engage with a projection from one of the jaws; the shanks are kept apart, under normal conditions, with a spring, a loop which is secured to one shank slides upon the other; pressure upon one of the shanks will open the jaws.

301.—MEANS FOR HOLDING WINDOWS: *T. W. Robertson and D. Hamilton.*—On the sash are mounted rounded or conical studs which springs force outwards into either holes in the frame or pierced plates secured to the frame—otherwise the studs, let into the frame may be engaged with holes in the sash-stiles; the device is available equally for small sashes that slide vertically or sideways.

358.—IMPROVEMENTS IN STREET LAMPS: *F. F. Simmance and F. Abady.*—In order that a steady draught may be maintained through the lantern in spite of changes in the atmospherical conditions, the inventors put a spring, or weighted flap, or valve, in the inlet or the outlet passage: and so, in the latter case, also provide a door for lighting purposes. In one adaptation, the pivoted flap—of talc, aluminium, &c.—has a counter-balancing and adjustable weight upon a screw-threaded rod. As an increased draught lifts the flap, the rod becomes turned horizontalwise, so as to increase the leverage exerted by the counter-weight. In other forms, the flap, set horizontally, is caused to fall and rise upon a vertical spindle, or guide, and a spring or a chain, to be gradually raised by the ascent of the flap, is substituted for the weight and pivoted screw-threaded rod.

361.—A CONTRIVANCE FOR LAVATORY BASINS: *F. Shanks and H. Simpson.*—A folding lavatory basin is secured to the customary hinged tray by means of projections that are fitted upon the under-side of the basin, and fastened with a screw and a thumb-nut that is inserted underneath a metallic band affixed to the tray. Removal of the basin for cleaning it is effected by unscrewing the nut. In another form a wedge-shaped projection is employed (instead of one of the others), and is adapted to fit into a dovetail attached to the tray. Similar appliances will serve for fitting urinals upon the upright slab.

400.—COMPOUND FABRICS FOR BUILDERS' USE: *A. Gustorf.*—The fabrics are composed of felt and wire. Between two layers of asphalt or of roofing-felt coated with asphalt is introduced a middle part for strengthening or stiffening purposes, formed of open-meshed wire or gauze fabric embedded in plaster. The compound is then pressed between rollers. It is to be fastened with covering strips and nails to the beams and battens.

408.—APPARATUS FOR DOORS, WINDOWS, &C.: *M. Klingler.*—The free end of one portion of a double spring is joined to one leg of a staple whereof the other end turns upon a fixed bearing, whilst the free end of the other portion is pivoted upon a fixed stop, the staple will turn in its bearing and so cause the door to become shut through the action of a loop upon a pin affixed to the door—the turning of the staple being due to the efforts of the ends of the spring to separate from one another; when the bearing, the one leg of the staple, and the fixed stop are in alignment no turning force is exerted upon the staple so that the door will remain half-opened, but when it is opened further the spring comes into play to completely open the door; a violent closing of the door is prevented by a stud, in the path of the leg of the staple, that checks the door as it passes over the stud.

MEETINGS.

FRIDAY, MAY 2.

Architectural Association.—Members' supper at the Great Central Hotel, Marylebone-road. 7.30 p.m.

Institution of Junior Engineers.—Mr. Lewis H. Rugg on "Some Factors in Colonial Railway Construction." 8 p.m.

Royal Institution.—Professor A. E. Tutton, F.R.S., on "Experimental Researches on the Constitution of Crystals." 9 p.m.

SATURDAY, MAY 3.

St. Paul's Ecclesiological Society.—Visit to Croydon (Parish Church, St. Michael's Church, Whitgift Hospital, and Old Palace), under the guidance of Mr. George Clinch.

British Institute of Certified Carpenters.—Monthly meeting, Carpenters' Hall. 6 p.m.

Edinburgh Architectural Association.—Visit to Torwood Castle and Broch of Tappock.

MONDAY, MAY 5.

Royal Institute of British Architects.—(1) Special general meeting to elect the Royal Gold Medallist for the current year. The Chairman to move—That, subject to his Majesty's gracious sanction, the Royal Gold Medal for the promotion of architecture be presented this year to Mr. Thomas Edward Collcutt, for his work as an architect. (2) Annual general meeting to receive and consider the annual report; to elect scrutineers for the annual election of the Council and Standing Committees; to nominate candidates as auditors for the ensuing year of office; to appoint the Statutory Board of Examiners under the London Building Act, 1894, and other Acts of Parliament, for the ensuing year of office; to elect candidates for membership. (3) At the same meeting the Institute will be asked to sanction the issue of a Form of Agreement and Schedule of Conditions for Building Contracts for use where quantities form part of the contract, the document being based on the form now in use, with such variations as are necessary to meet the requirements of the proposed new form. 8 p.m.

Society of Engineers.—Mr. B. D. Healey on "Recent Blast Furnace Practice." 7.30 p.m.

Society of Arts (Cantor Lectures).—Mr. R. T. Glazebrook, M.A., on "Glass for Optical Instruments." IV. 8 p.m.

Clerks of Works Association (Carpenters' Hall).—Mr. G. Roberts on "The Hygiene of Wall Decorations." 7.30 p.m.

TUESDAY, MAY 6.

Society of Arts (Applied Art Section).—Mr. Charles T. Jacobi on "The Printing of Modern Illustrated or Decorated Books." 8 p.m.

WEDNESDAY, MAY 7.

Royal Archæological Institute.—Professor Boyd Dawkins on "Bigbury Camp and the Pilgrim's Way." 4 p.m.

Society of Arts.—Mr. Albert Chancellor, J.P., on "The Origin and History of Carriages." 8 p.m.

Builders' Foremen and Clerks of Works' Institution.—Ordinary meeting of the members. 8 p.m.

Institute of Sanitary Engineers, Ltd.—General Purposes and Finance Committee. 4 p.m. Election of Committee. 5.15 p.m. Council meeting. 7 p.m.

THURSDAY, MAY 8.

Royal Institution.—Mr. A. Smith Woodward, LL.D., F.R.S., on "Recent Geological Discoveries." II. 3 p.m.

Institution of Electrical Engineers.—Conclusion of discussion on "Form of Model General Conditions." 8 p.m.

FRIDAY, MAY 9.

Architectural Association.—(1) Mr. Owen Fleming on "Artisans' Dwellings from the Municipal Point of View." (2) Mr. Louis Ambler on "Artisans' Dwellings from the Private Point of View." 7.30.

SATURDAY, MAY 10.

Institution of Junior Engineers.—Visit to the Great Eastern Railway Works, Stratford. Train from Liverpool-street at 9.17 a.m.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

April 17.—By PROTHEROE & MORRIS (on the estate).

Herne Bay, Kent.—Rowland Drive, &c., 46 plots of freehold building land (in lots) £384

By BROAD, WILTSHIRE, & PENNY (at Sutton).

Sutton, Surrey.—1 and 2, Helston-villas, f., e.r. 53*l.* 580

April 18.—By PROTHEROE & MORRIS (on the estate).

Pegwell Bay, Kent.—Main-rd., &c., 63 plots of freehold building land (in lots) 868

April 21.—By JOHN BUSSEY.

Bromley-by-Bow.—150, Chrisp-st., with factories, out-buildings, &c., part f. and part u.t. 49 yrs., g.r. nil, e.r. 290*l.* 3,300

Poplar.—Robin Hood-lane, a block of building land, area 2,045 ft., f. 850

19 and 14, Jeremiah-st., f., w.r. 36*l.* 8s. 350

By ANSCOMBE & RINGLAND.

St. John's Wood.—34, Hamilton-ter., u.t. 36 yrs., g.r. 18*l.* 4s., p. 1,900

By CHANCELLOR & SONS.

Richmond Hill.—King's-rd., Faircroft, u.t. 77 yrs., g.r. 30*l.*, p. 2,570

By ELLIS & SON.

Loughton, Essex.—Church Hill, Uplands, and 18 a. 0 r. 19 p., f., p. 5,250

By WM. HOUGHTON.

Walthamstow.—99 and 101, Oatland-rise, f., w.r. 33*l.* 16s. 335

28 and 30, Worcester-rd. West, f., w.r. 44*l.* 4s. 500

Hale End-rd., a freehold building site 170

By PROTHEROE & MORRIS.

St. Margaret's Bay, Kent.—Trafalgar-rd., &c., 78 freehold building plots (in lots) 804

April 22.—By H. J. BROMLEY.

Forest Hill.—Honor Oak Pk., i.g.r.'s 28*l.* 10s., u.t. 64 yrs., g.r. nil 585

103, Stanstead-rd., "Corcyra," u.t. 72 yrs., f., w.r. 28*l.* 12s. 350

Sydenham.—Panmure-rd., Corcyra, u.t. 72 yrs., g.r. 25*l.* 10s., e.r. 65*l.* 300

By FRANCIS DOD & CO.

Stoke Newington.—18, 20, and 22, Victoria-grove West, u.t. 42 yrs., g.r. 8*l.* 10s., w.r. 9*l.* 6s. .. 660

St. Luke's.—97, 99, and 101, Central-st. Corporation lease, u.t. 51 yrs., g.r. and fines nil 1,300

Caledonian-rd.—66, Gifford-st., u.t. 48 yrs., g.r. 6*l.*, y.r. 36*l.* 295

Bermondsey.—231, Abbey-st., f., y.r., 36*l.* 460

1A, Flockton-st., f., w.r. 26*l.* 275

Camberwell. — 1 to 5, Hopewell-pl., f., w.r. 58*l.* 10s. 410

Stamford Hill.—29, Daleview-rd., u.t. 68 yrs., g.r. 6*l.*, e.r. 34*l.* 320

Edmonton.—Wakefield-st., four plots of building land, f. 205

By DRENNAN, TEWSON, & CO.

Hampstead.—10, Strathray-gdns., u.t. 78½ yrs., g.r. 2*l.*, y.r. 35o*l.* 5,500

By GOODMAN & CROWTHER.

Cheddington, Bucks.—Station-rd., The Myrtle Villa and 1 a. 1 r. 12 p., f., p. 530

Brixton.—28, Grove-rd., u.t. 23¾ yrs., g.r. 5*l.* 15s., p. 340

By WALFORD & WILSHIN.

Norwood.—46 and 48, Auckland-rd., u.t. 79 yrs., g.r. 16*l.* 16s., y.r. 95*l.* 855

49, Penge-rd., u.t. 65 yrs., g.r. 7*l.* 10s., e.r. 30*l.* 190

By WESTON & SONS.

treatham.—36, Leigham-vale, u.t. 81 yrs., g.r. 6*l.* 10s., y.r. 36*l.* 270

By C. P. WHITELEY.

Regent's Pk.—13, Chester-ter. and 13, Chester-mews, u.t. 13¾ yrs., g.r. 52*l.* 10s., y.r. 275*l.* .. 1,500

Isleworth (Middx.).—73, 75, 77, and 79, Linkfield-road, u.t. 94½ yrs., g.r. 13*l.*, w.r. 83*l.* 4s. 660

By G. F. HARRINGTON.

Willesden.—Rucklidge-av., f.g.r.'s 91*l.* 10s., reversion in 77 yrs. 2,250

Plaistow.—Balaam-st., f.g.r. 36*l.*, reversion in 80 yrs. 850

Forest Hill.—Perry-vale, f.g.r.'s 80*l.*, reversion in 71 yrs. 2,310

Stanstead-rd., f.g.r.'s 54*l.*, reversion in 71 yrs... 1,490

Catford.—Perry Hill, Rutland Hotel, f.g.r. 100*l.*, reversion in 47½ yrs. 2,860

Camberwell.—Bengeworth-rd., f.g.r.'s 86*l.*, reversion in 71 yrs. 2,185

Wimbledon.—Worple-rd., f.g.r. 10*l.*, reversion in 65 yrs. 320

Tabor-gr., f.g.r.'s 19*l.* 10s., reversion in 65 yrs... 395

Tabor-gr., f.g.r. 12*l.*, reversion in 76 yrs. 360

St. George's-rd., f.g.r.'s 49*l.*, reversion in 76 yrs. 1,540

St. George's-rd., f.g.r.'s 36*l.*, reversion in 65 yrs. 1,075

St. George's-rd., f.g.r.'s 28*l.*, reversion in 76 yrs. 895

By J. C. PLATT (at Hammersmith).

Chiswick.—5 and 7, South-parade, f., y.r. 107*l.* .. 1,800

High-rd., Hamilton House, u.t. 88 yrs., g.r. 10*l.* 15s., e.r. 80*l.* 880

April 23.—By BAXTER, PAYNE, & LEPPER.

Morden, Surrey.—The Elms, u.t. 67 yrs., g.r. 14*l.* 10s., p. 770

By TAYLOR, LOVEGROVE, & CO.

Hyde Park.—28, Kensington Gdns.-ter., u.t. 25 yrs., g.r. nil, y.r. 100*l.* 1,200

South Kensington.—10, Petersham-ter., u.t. 54 yrs., g.r. 24*l.*, y.r. 150*l.* 1,855

Paddington.—Howley-pl., i.g.r.'s 150*l.*, u.t. 35 yrs., g.r. 2*l.* 2,320

Kensington.—Holland Pk.-rd., 5, The Studios, u.t. 66 yrs., g.r. 18*l.*, e.r. 90*l.* 650

By T. N. TURNER.

Marylebone.—9, New Quebec-st. (dairy), u.t. 26 yrs., g.r. 20*l.*, y.r. 105*l.* 990

Regent's Park.—53, Gloucester-cres., u.t. 60 yrs., g.r. 1*l.*, y.r. 30*l.* 590

Notting Hill.—2, Rillington-pl., u.t. 62 yrs., g.r. 6*l.* 10s., y.r. 32*l.* 265

Holloway.—Campdale-rd., i.g.r.'s 48*l.*, u.t. 72½ yrs., g.r. 15*l.* 10s. £605

April 24.—By HOLLIS & HARRIS.

Hendon.—Sunningfields-rd., Westridge, u.t. 77 yrs., g.r. 10*l.* 10s., e.r. 65*l.* 430

By NEWSON, EDWARDS, & SHEPHERD.

Clerkenwell.—1, Warden's-court or pl., f., w.r. 40*l.* 6s. 770

Hammersmith.—4, Amor-rd., u.t. 74 yrs., g.r. 7*l.* 10s., y.r. 36*l.* 360

Islington.—9, Gibson-sq., u.t. 16 yrs., g.r. &c. 9*l.*, y.r. 48*l.* 235

13, Theberton-st., with stable and warehouse, u.t. 12 yrs., g.r. 6*l.* 16s., y.r. 63*l.* 315

49, College-st., u.t. 14 yrs., g.r. 2*l.*, y.r. 40*l.* .. 225

Clerkenwell.—6¾ and 9, Hallett's-pl., u.t. 13½ yrs., g.r. 12*l.*, w.r. 59*l.* 10s. 155

St. Luke's.—70 to 78 (even), Gee-st., u.t. 7 yrs., g.r. 24*l.*, w.r. 114*l.* 8s. 190

Hoxton.—60, Baring-st. (manufacturing premises), u.t. 30¾ yrs., g.r. 6*l.* 5s., y.r. 125*l.* 1,000

Holloway.—4 and 5, Andover-gdns., u.t. 50 yrs., g.r. 7*l.*, w.r. 49*l.* 8s. 230

Islington.—11, Ockenden-rd., u.t. 35½ yrs., g.r. 6*l.* 10s., e.r. 50*l.* 400

Notting Hill.—117, Portobello-rd., u.t. 40½ yrs., g.r. 8*l.*, y.r. 105*l.* 450

By STIMSON & SONS.

St. Luke's.—2, Sycamore-st. (warehouse), u.t. 51½ yrs., g.r. 30*l.*, y.r. 87*l.* 10s. 260

Fulham.—1, 4 to 18, Bedford-pl., f., w.r. 261*l.* 16s. 1,850

Peckham.—7 and 9, Commercial-rd. (St. Luke's Institute), f., y.r. 60*l.* 1,010

164 and 166, High-st. (S.), y.r. 210*l.*, also i.g.r. 5*l.*, u.t. 16½ yrs., g.r. 35*l.* 800

Brixton.—33 and 34, Thornton-st., u.t. 23 yrs., g.r. 6*l.*, w.r. 85*l.* 16s. 450

12, Chantry-rd., u.t. 69¾ yrs., g.r. 7*l.*, y.r. 38*l.* 440

Walworth.—69 and 71, Penrose-st. (S.), f., y.r. 58*l.* 4s. 650

Wandsworth-rd.—No. 394, u.t. 53 yrs., g.r. 4*l.*, y.r. 55*l.* 630

East Ham.—41 and 47, Katherine-rd., f., y.r. 60*l.* 745

By J. A. & W. THARP.

Spitalfields.—77 and 79, Commercial-st. (S.), f., y.r. 120*l.* 2,525

7 and 8, Tilley-st., f., w.r. 143*l.* 1,750

Stratford.—46, 47, and 48, Forest-lane, f., y.r. 80*l.* 1,210

92, Leytonstone-rd., f., y.r. 28*l.* 585

By TUCKETT & SON.

Kensington.—3 and 5, Pitt-st., u.t. 41½ yrs., g.r. 16*l.*, y.r. 175*l.* 1,700

Forest Hill.—6, Marmora-rd., u.t. 78½ yrs., g.r. 1*l.*, e.r. 30*l.* 305

By VARLEY & LOCKING.

Finsbury.—24, Portland-rd., u.t. 57 yrs., g.r. 12*l.* 12s., e.r. 70*l.* 585

By FAREBROTHER, ELLIS, & CO.

Hornsey Rise.—Hornsey Rise-gdns., f.g.r.'s 226*l.* 14s., reversion in 80½ yrs. (in lots) 6,140

Hornsey Rise-gdns., f.g.r. 10*l.* 13s., also peppercorn g.r., reversion in 80½ yrs. 600

Hornsey Rise, f.g.r.'s 157*l.* 10s., reversion in 80½ yrs. (in lots) 4,640

Holloway.—St. John's-rd., f.g.r.'s 75*l.*, reversion in 46½ yrs. 2,060

Queensland-rd., the Queen's Arms p.-h., f.g.r. 45*l.*, reversion in 31½ yrs. 2,300

Queensland-rd., f.g.r.'s 42*l.*, reversion in 31½ yrs. 1,145

April 25.—By BROWETT & TAYLOR.

Brondesbury.—72, 74, 76, and 78, Maygrove-rd., f., y.r. 160*l.* 2,230

86, 88, and 90, Iverson-rd., u.t. 77½ yrs., g.r. 24*l.*, y.r. 116*l.* 1,270

Hendon.—5, 7, 9, and 11, Bellevue-ter., u.t. 79 yrs., g.r. 15*l.*, w.r. 101*l.* 8s. 440

17, 22, 21, and 23, Bellevue-ter., u.t. 81 yrs., g.r. 16*l.*, w.r. 98*l.* 16s. 440

By WM. CLARKSON.

Stepney.—365, Commercial-rd. (S), c., e.r. 100*l.* (with goodwill) 850

By C. RAWLEY CROSS & CO.

Kensington.—22 and 24, Dewhurst-rd., u.t. 79 yrs., g.r. 16*l.*, y.r. 110*l.* 1,200

Acton Hill.—14, Elmwood-gdns., u.t. 95 yrs., g.r. 11*l.* 11s., y.r. 120*l.* £90

By DOLLMAN & PEARCE.

Hampstead.—66, Adelaide-rd., u.t. 41 yrs., g.r. 10*l.*, p. 960

120, Fellows-rd., u.t. 62½ yrs., g.r. 2*l.*, y.r. 100*l.* 850

Haverstock Hill.—12, Parkhill-rd., u.t. 48 yrs., g.r. 12*l.*, p. 500

By JONES, LANG, & CO.

Shoreditch.—35 and 37, Great Eastern-st., u.t. 55 yrs., g.r. 139*l.*, y.r. 470*l.*; 30 and 31, Holywell-lane, u.t. 55 yrs., g.r. 55*l.*, y.r. 280*l.*; 58, Curtain-rd., u.t. 56 yrs., g.r. 50*l.*, y.r. 170*l.* .. 7,500

By FRANK MELROSE.

St. John's Wood.—30, Blenheim-ter., u.t. 84¾ yrs., g.r. 12*l.* 12s., w.r. 70*l.* 370

By C. SPARROW & SON.

Finchley.—Regent's Pk.-rd., Highcroft., u.t. 77½ yrs., g.r. 5*l.*, y.r. 75*l.* 1,000

Woodside Pk.-rd., Tredinnock, f., y.r. 90*l.* 1,625

By MONTAGU & ROBINSON.

Limehouse.—Eastfield-st., f.g.r. 2*l.* 5s., reversion in 19 yrs. 80

Clapham.—16, 18, 20, and 22, Kildoran-rd., f., y.r. 126*l.* 1,835

Spitalfields.—45, Brushfield-street (S.), f., y.r. 37*l.* 775

Whitechapel.—40 and 42, Thomas-st., c., w.r. 54*l.* 12s. 750

Maida Vale.—13, Elgin-mews South (stabling), u.t. 57½ yrs., g.r. 5*l.*, y.r. 25*l.* 225

Finsbury Park.—380, Green Lanes (S.), u.t. 70½ yrs., g.r. 15*l.*, y.r. 85*l.* 1,150

Hermitage-rd., Boston House, u.t. 72½ yrs., g.r. 4*l.*, e.r. 90*l.* 900

32, Park-rd., u.t. 78½ yrs., g.r. 5*l.* 10s., w.r. 28*l.* 12s. 185

By A. J. SHEPPIELD.

Poplar.—138 to 170, 176 to 182 (even), Abbott-rd., u.t. 71 yrs., g.r. 54*l.*, w.r., 432*l.* 4s. 2,920

24 to 30 (even), Glencoe-st. (S.), u.t. 71 yrs., g.r. 17*l.*, w.r. 128*l.* 14s. 925

11 and 12, Highland-st., u.t. 71 yrs., g.r. 8*l.* 10s., w.r. 39*l.* 16s. 5

14, 15 and 16, Highland-st. (S.), u.t. 71 yrs., g.r. 13*l.*, w.r. 104*l.* £715

17, Sturry-st., u.t. 47 yrs., g.r. 6*l.*, y.r. 45*l.* 350

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; e. for estimated rental; w.r. for weekly rental; y.r. for yearly rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; av. for avenue; gdns. for gardens; yd. for yard.

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

	£	s.	d.		
Hard Stocks	1	11	6	per 1,000 alongside, in river	
Rough Stocks and Grizzles	1	9	6	,,	,, ,,
Facing Stocks	2	12	0	,,	,, ,,
Shippers	2	5	0	,,	,, ,,
Flettons	1	8	0	,,	at railway depôt.
Red Wire Cuts ..	1	12	0	,,	,, ,,
Best Fareham Red	3	12	0	,,	,, ,,
Best Red Pressed Ruabon Facing.	5	5	0	,,	,, ,,
Best Blue Pressed Staffordshire ..	4	6	6	,,	,, ,,
Do., Bullnose	4	10	0	,,	,,
Best Stourbridge Fire Bricks	4	5	6	,,	,, ,,
GLAZED BRICKS					
Best White and Ivory Glazed Stretchers.....	13	0	0	,,	,, ,,
Headers	12	0	0	,,	,, ,,
Quoins, Bullnose, and Flats	17	0	0	,,	,, ,,
Double Stretchers	19	0	0	,,	,, ,,
Double Headers..	16	0	0	,,	,, ,,
One Side and two Ends	19	0	0	,,	,, ,,
Two Sides and one End	20	0	0	,,	,, ,,
Splays, Chamfered, Squints.....	20	0	0	,,	,, ,,
Best Dipped Salt Glazed Stretchers and Headers ..	12	0	0	,,	,, ,,
Quoins, Bullnose, and Flats	14	0	0	,,	,, ,,
Double Stretchers	15	0	0	,,	,, ,,
Double Headers..	14	0	0	,,	,, ,,
One Side and two Ends	15	0	0	,,	,, ,,
Two Sides and one End	15	0	0	,,	,, ,,
Splays, Chamfered, Squints.....	14	0	0	,,	,, ,,
Seconds Quality White and Dipped Salt Glazed	2	0	0	,,	less than best.
Thames and Pit Sand	7			3 per yard, delivered.	
Thames Ballast	6	0		,,	,,
Best Portland Cement	32	0		per ton, delivered.	
Best Ground Blue Lias Lime..	25	0		,,	,,

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime..... 11s. 0d. per yard, delivered.
Stourbridge Fire-clay in sacks, 26s. 6d. per ton at rly. dpt.

STONE.

	s.	d.	
Ancaster in blocks	1	11	per ft. cube, deld. rly. depot.
Bath ,, ...	1	7	,, ,,
Farleigh Down Bath ..	1	8	,, ,,
Beer in blocks	1	6	,, ,,
Grinshill ,, ...	1	10	,, ,,
Brown Portland in blocks	2	2	,, ,,
Darley Dale in blocks..	2	4	,, ,,
Red Corsehill ,,	2	5	,, ,,
Closeburn Red Freestone	2	3	,, ,,
Red Mansfield ,,	2	4	,, ,,
Hard York in blocks ..	2	10	,, ,,
Hard York 6 in. sawn both sides landings, to sizes (under 40 ft. sup.)	2	8	s. d. per ft. super. at rly. depôt.
,, ,, 6 in. Rubbed Ditto..	3	0	,, ,,
,, ,, 3 in. sawn both sides slabs (random sizes)	1	3	,, ,,
,, ,, 2 in. self-faced Ditto	0	9½	,, ,,
Hopton Wood (Hard Bed) in blocks	2		3 per ft. cube. deld. rly. depôt
,, ,, ,, 6 in. sawn both sides landings	2		7 per ft. super. deld. rly. depôt.
,, ,, ,, 3 in. do.	1	2½	,, ,,

SLATES.

in.	in.	£	s.	d.	
20×10 best blue Bangor..		12	0	0	per 1000 of 1200 at ry. dep.
,, best seconds ,,		11	10	0	,, ,,
16×8 best ,,		6	15	0	,, ,,
20×10 best blue Portmadoc		11	5	0	,, ,,
16×8 best blue Portmadoc		6	0	0	,, ,,
20×10 best Eureka unfading green....		12	2	6	,, ,,
16×8 ,, ,,		7	5	0	,, ,,
20×10 permanent green		10	5	0	,, ,,
16×8 ,, ,,		5	17	6	,, ,,

PRICES CURRENT (*Continued*).

TILES.

	s.	d.		
Best plain red roofing tiles	41	6	per 1,000, at rly. depôt.	
Hip and valley tiles	3	7	per doz.	" "
Best Broseley tiles	48	6	per 1,000	" "
Hip and valley tiles	4	0	per doz.	" "
Best Ruabon Red, brown or brindled Do. (Edwards)	57	6	per 1,000	" "
Do. ornamental Do.	60	0	"	" "
Hip tiles	4	0	per doz.	" "
Valley tiles	3	9	"	" "
Best Red or Mottled Staffordshire Do. (Peakes)	50	9	per 1,000	" "
Hip tiles	4	1	per doz.	" "
Valley tiles	3	8	"	" "

WOOD.

BUILDING WOOD.—YELLOW.	At per standard.					
	£	s.	d.	£	s.	d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	14	10	0	16	0	0
Deals: best 3 by 9	13	10	0	15	0	0
Battens: best 2½ in. by 7 in. and 8 in. and 3 in. by 7 in. and 8 in.	10	10		11	10	0
Battens: best 2½ by 6 and 3 by 6	0	10	0	less than 7 in. and 8 in.		
Deals: seconds	1	0	0	less than best		
Battens: seconds	0	10	0	" " "		
2 in. by 4 in. and 2 in. by 6 in.	8	10	0	9	10	0
2 in. by 4½ in. and 2 in by 5 in.	8	0	0	9	0	0
Foreign Sawn Boards—						
1 in. by 12 in. by 11 in.	0	10	0	more than battens.		
1½ in.	1	0	0	"		
Fir timber: Best middling Danzig or Memel (average specification)	At per load of 50 ft.					
	4	10	0	5	0	0
Seconds	4	5	0	4	10	0
Small timber (8 in. to 10 in.)	3	12	6	3	15	0
Swedish balks	2	15	0	3	0	0
Pitch-pine timber (50 ft.)	3	0	0	3	10	0
JOINERS' WOOD.	At per standard.					
White Sea: First yellow deals, 3 in. by 11 in.	22	0	0	23	0	0
3 in. by 9 in.	20	0	0	21	0	0
Battens, 2½ in. and 3 in. by 7 in.	16	10	0	18	0	0
Second yellow deals, 3 in. by 11 in.	18	0	0	20	0	0
" " 3 in. by 9 in.	16	10	0	18	10	0
Battens, 2½ in. and 3 in. by 7 in.	13	0	0	14	0	0
Third yellow deals, 3 in. by 11 in. and 9 in.	14	0	0	15	10	0
Battens, 2½ in. and 3 in. by 7 in.	11	10	0	12	10	0
Petersburg: first yellow deals, 3 in. by 11 in.	20	0	0	21	0	0
Do. 3 in. by 9 in.	17	0	0	18	0	0
Battens	13	0	0	14	0	0
Second yellow deals, 3 in. by 11 in.	15	0	0	16	10	0
Do. 3 in. by 9 in.	13	10	0	14	10	0
Battens	11	0	0	12	0	0
Third yellow deals, 3 in. by 11 in.	12	10	0	13	10	0
Do. 3 in. by 9 in.	12	0	0	13	0	0
Battens	10	0	0	11	0	0
White Sea and Petersburg:—						
First white deals, 3 in. by 11 in.	14	0	0	15	0	0
" " " 3 in. by 9 in.	13	0	0	14	0	0
Battens	11	0	0	12	0	0
Second white deals 3 in. by 11 in.	13	0	0	14	0	0
" " " 3 in. by 9 in.	12	0	0	13	0	0
" " " battens	9	10	0	10	10	0
Pitch-pine: deals	16	0	0	18	0	0
Under 2 in. thick extra	0	10	0	1	0	0
Yellow Pine—First, regular sizes	32	0	0	33	10	0
Broads (12 in. and up)	2	0	0	more.		
Oddments	22	0	0	24	0	0
Seconds, regular sizes	24	10	0	26	10	0
Yellow Pine Oddments	20	0	0	22	0	0
Kauri Pine—Planks, per ft. cube	0	3	6	0	4	6
Danzig and Stettin Oak Logs—Large, per ft. cube	0	2	6	0	3	0
Small " "	0	2	3	0	2	6
Wainscot Oak Logs, per ft. cube	0	5	0	0	5	6
Dry Wainscot Oak, per ft. sup. as inch	0	0	7½	0	0	8
¼ in. do. do.	0	0	7	-	-	-
Dry Mahogany—						
Honduras, Tabasco, per ft. sup. as inch	0	0	9	0	0	11
Selected, Figury, per ft. sup. as inch	0	1	6	0	2	0
Dry Walnut, American, per ft. sup. as inch	0	0	10	0	1	0
Teak, per load	16	0	0	20	0	0
American Whitewood Planks—						
Per ft. cube	0	3	0	0	3	6
Prepared Flooring—	Per square.					
1 in. by 7 in. yellow, planed and shot	0	13	0	0	16	6
1 in. by 7 in. yellow, planed and matched	0	13	6	0	17	6
1¼ in. by 7 in. yellow, planed and matched	0	15	0	1	0	0
6 in. at 6d. per square less than 7 in.						
1 in. by 7 in. white, planed and shot	0	11	0	0	12	6
1 in. by 7 in. white, planed and matched	0	11	6	0	13	6
1¼ in. by 7 in. white, planed and matched	0	13	6	0	15	6
6 in. at 6d. per square less than 7 in.						

JOISTS, GIRDERS, &c.

	In London, or delivered Railway Vans, per ton.					
	£	s.	d.	£	s.	d.
Rolled Steel Joists, ordinary sections	6	2	6	7	2	6
Compound Girders " "	7	17	6	8	17	6
Angles, Tees and Channels, ordinary sections	7	17	6	8	17	6
Flitch Plates	8	5	0	8	15	0
Cast Iron Columns and Stanchions, including ordinary patterns	7	0	0	8	0	0

METALS.

	Per ton, in London.					
IRON—	£	s.	d.	£	s.	d.
Common Bars	7	15	0	8	5	0
Staffordshire Crown Bars, good merchant quality	8	5	0	8	15	0

PRICES CURRENT (*Continued*).

METALS.

	Per ton, in London.					
IRON—	£	s.	d.	£	s.	d.
Staffordshire "Marked Bars"	10	10	0	-	-	-
Mild Steel Bars	9	0	0	9	10	0
Hoop Iron, basis price	9	5	0	9	10	0
" " galvanised	16	0	0	-	-	-
(* And upwards, according to size and gauge.)						
Sheet Iron, Black,—						
Ordinary sizes to 20 g.	10	0	0	-	-	-
" " to 24 g.	11	0	0	-	-	-
" " to 26 g.	12	10	0	-	-	-
Sheet Iron, Galvanised, flat, ordinary quality.—						
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	12	15	0	-	-	-
" " 22 g. and 24 g.	13	5	0	-	-	-
" " 26 g.	14	5	0	-	-	-
Sheet Iron, Galvanised, flat, best quality:—						
Ordinary sizes to 20 g.	16	0	0	-	-	-
" " 22 g. and 24 g.	16	10	0	-	-	-
" " 26 g.	18	0	0	-	-	-
Galvanised Corrugated Sheets.—						
Ordinary sizes, 6 ft. to 8 ft. 20 g.	12	15	0	-	-	-
" " 22 g. and 24 g.	13	5	0	-	-	-
" " 26 g.	14	5	0	-	-	-
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. by 20 g. and thicker	12	0	0	-	-	-
" " 22 g. and 24 g.	13	0	0	-	-	-
" " 26 g.	14	5	0	-	-	-
Cut nails, 3 in. to 6 in.	9	5	0	9	15	0
(Under 3 in. usual trade extras.)						

LEAD, &c.

	Per ton, in London.					
	£	s.	d.	£	s.	d.
LEAD—Sheet, English, 3 lbs. & up.	14	7	6	-	-	-
Pipe in coils	14	17	6	-	-	-
Soil Pipe	17	7	6	-	-	-
ZINC—Sheet—						
Vieille Montagne ton	24	10	0	-	-	-
Silesian	24	0	0	-	-	-
COPPER—						
Strong Sheet per lb.	0	1	0	-	-	-
Thin "	0	1	2½	-	-	-
Copper nails "	0	1	1½	-	-	-
BRASS—						
Strong Sheet "	0	0	11	-	-	-
Thin "	0	1	1	-	-	-
TIN—English Ingots "	0	1	3½	-	-	-
SOLDER—Plumbers' "	0	0	6½	-	-	-
Tinmen's "	0	0	8	-	-	-
Blowpipe "	0	0	9	-	-	-

ENGLISH SHEET GLASS IN CRATES.

15 oz. thirds	2½d. per ft. delivered.
" fourths	2¾d. " "
21 oz. thirds	3¼d. " "
" fourths	3d. " "
26 oz. thirds	4¼d. " "
" fourths	4d. " "
32 oz. thirds	5¼d. " "
" fourths	5d. " "
Fluted sheet, 15 oz.	3d. " "
" 21 "	4d. " "
½ Hartley's Rolled Plate	2d. " "
⅝ " " "	2½d. " "
¾ " " "	2¾d. " "

OILS, &c.

		£	s.	d.
Raw Linseed Oil in pipes	per gallon	0	2	8
" " in barrels	"	0	2	9
" " in drums	"	0	2	11
Boiled " in pipes	"	0	2	10
" " in barrels	"	0	2	11
" " in drums	"	0	3	1
Turpentine, in barrels	"	0	2	8
" in drums	"	0	2	10
Genuine Ground English White Lead	per ton	21	0	0
Red Lead, Dry	"	20	10	0
Best Linseed Oil Putty	per cwt.	0	8	6
Stockholm Tar	per barrel	1	12	0

VARNISHES, &c.

	Per gallon.		
	£	s.	d.
Fine Elastic Copla Varnish for outside work	0	16	6
Best Elastic Copa Varnish for outside work	1	0	0
Best Elastic Carriage Varnish for outside work	0	16	0
Best Hard Oak Varnish for inside work	0	10	6
Best Extra Hard Church Oak Varnish for inside work	0	10	6
Fine Hard Copal Varnish for inside work	0	16	0
Best Hard Copal Varnish for inside work	1	0	0
Best Hard Carriage Varnish for inside work	0	16	0
Extra Pale Paper Varnish	0	12	0
Best Japan Gold Size	0	10	6
Best Black Japan	0	16	0
Oak and Mahogany Stain	0	9	0
Brunswick Black	0	8	6
Berlin Black	0	16	0
Knotting	0	10	0
Best French and Brush Polish	0	10	0

TO CORRESPONDENTS.

G. & F.—T. S. (Amounts should have been stated). "Canvass" (We do not understand your question. There is no such reference in our issue of January 3).

NOTE.—The responsibility of signed articles, letters, and papers read at meetings rests, of course, with the authors.

We cannot undertake to return rejected communications.

Letters or communications (beyond mere news items) which have been duplicated for other journals are NOT DESIRED.

We are compelled to decline pointing out books and giving addresses.

Any commission to a contributor to write an article is given subject to the approval of the article, when written, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

All communications regarding literary and artistic matters should be addressed to THE EDITOR; those relating to advertisements and other exclusively business matters should be addressed to THE PUBLISHER, and *not* to the Editor.

TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than 10 a.m. on Thursdays*. N.B.—We cannot publish Tenders unless authenticated either by the architect or the building-owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is given, nor any list in which the lowest Tender is under 100*l.*, unless in some exceptional cases and for special reasons.]

* Denotes *accepted*. † Denotes *provisionally accepted*.

ABERDEEN.—For reconstruction and enlargement of Woodside public school, for the School Board. Mr. J. A. O. Allan, architect, 22, Union-terrace, Aberdeen. Quantities by Messrs. Hendry & Addie, Union-street, Aberdeen:—
Masonry.—G. Hall* £17,087 18
Carpentry.—Hendry & Keith* .....
Slating.—Merson & Stewart* .....
Plastering.—Scott & Son* .....
Plumbing.—Thom & Strachan* .....
Painting and Glazing.—Murray & Mitchell* .....
Steelwork.—McKinnon & Co.* .....
Iron and Smith Work.—Abernethy & Co.* .....
[All of Aberdeen.]

ABERDEEN.—For enlargement of Rosemount Public School, for the School Board. Mr. J. A. O. Allan, architect, 22, Union-terrace, Aberdeen. Quantities by Messrs. Hendry & Addie, Union-street, Aberdeen:—
Masonry.—Gall & Walker* £7,338 19 6
Carpentry.—Leslie & Hay* .....
Slating.—Adam Martin* .....
Plastering.—Scott & Son* .....
Plumbing.—Alex. Fiddes* .....
Painting and Glazing.—Mason & Sons* .....
Heating.—John A. Sangster* .....
[All of Aberdeen.]

ALDFIELD.—For Aldfield Wesleyan Chapel, near Ripon. Mr. Thomas Stokes, architect, Thirsk. Quantities by architect:—
J. H. Coldbeck, Ripon £478 10

ANDOVER (Hants).—For the erection of a pair of cottages, Lower Cranbourne Farm, near Sutton Scotney, for Mrs. McCreagh Thornhill. Messrs. W. & G. A. Bell, architects, Andover:—

Beale & Sons	£663	Sydney Bell	£565
Goodall	659	Grace & Son	538

BARNSLEY.—For the erection of stone boundary walls, Pogmoor-road, &c., for the Guardians. Messrs. Crawshaw & Wilkinson, architects, 13, Regent-street, Barnsley:—
Higham & Son, Measbro' Dyke, Barnsley £472 18 4

BARNSLEY.—For the erection of six houses, Joseph-street, Grimethorpe. Messrs. R. & W. Dixon, architects, 5, Eastgate, Barnsley:—

Masonry and Bricklaying.
George H. Brown, Barnsley £474 0

Carpentry and Joinery.
W. G. & L. England, Barnsley 230 0

Plumbing and Glazing.
J. Binns, Cudworth 30 0

Plastering.
J. H. Seacroft, Grimethorpe 57 0

Slating.
E. Fleming, Barnsley 64 0

Painting.
J. P. W. Sykes, Cudworth 19 18

BATH.—For the execution of building works at the Statutory Hospital, Claverton Down. Mr. F. W. Gardiner, architect, Barton-street, Bath:—

Discharging Ward.

F. Parsons	£288 0 0	G. Fisher	£211 12 6
J. Foster	236 0 0	C. Wibley, James-street, Bath*	206 10 0
Mould Bros.	218 0 0		

Disinfecting Rooms.

Coleby & Sons	£113 4 0	Mould Bros.	£88 0 0
C. Wibley	99 10 0	G. Fisher, Combe Down*	61 10 6
J. Foster	95 0 0		
F. Parsons	92 10 0		

BATH.—For rebuilding of the Gloucester Inn, Somerset-buildings, Bath, for Mr. J. Clark. Mr. F. W. Gardiner, architect, Barton-street, Bath:—

Uphill	£959 12	W. Webb	£849 0
Chancellor & Sons	949 0	J. Foster	798 0
Erwood & Morris	928 0	F. Parsons, Railway-place, Bath*	789 0
Wills & Sons	830 0		

BEAMINSTER (Dorset).—For the erection of institute and public hall. Mr. B. Vaughan Johnson, architect, 20, Victoria-street, Westminster, S.W.:—

C. & A. Hann	£1,383	B. B. Chambers, Beaminster*	£1,170
J. G. Sprackling	1,250		

BEESTON (Notts).—For the erection of six dwelling houses, situate in King-street. Mr. Fred. C. Martin, architect, Nottingham:—

E. Spray	£1,278	T. H. Harper, Carlton*	£1,125
E. Ascroft	1,202		
A. Caunt	1,170		

See also page 459.

COMPETITIONS, CONTRACTS, AND PUBLIC APPOINTMENTS.

(For some Contracts, &c., still open, but not included in this List, see previous issues.)

COMPETITIONS.

Nature of Work.	By whom Advertised.	Premiums.	Designs to be delivered
*New Municipal Offices	Crewe Corporation	50*l.* and 25*l.*	June 12

CONTRACTS.

Nature of Work or Materials.	By whom Advertised.	Forms of Tender, &c., Supplied by	Tenders to be delivered
Additions to Schools, Kenton	Harrow U. D. School Board	A. Fillmore, High-street, Harrow	May 6
House, Holcombe, near Dawlish, Devon	.....	C. Cole, Architect, 50, High-street, Exeter	do.
Bakery, Court-street, Trowbridge	.....	W. W. Snallum, Architect, Church-street, Trowbridge	do.
Making-up Bolton-road	Windsor Town Council	Borough Surveyor, Alma-road, Windsor	do.
Timber Work, Provan Gasworks	Glasgow Corporation	W. Foulis, Engineer, 45, John-street, Glasgow	do.
Road Metal, &c.	Hetton-le-Hole (Durham) U.D.C.	J. Harding, Surveyor, Council Office, Hetton-le-Hole, R.S.O.	do.
Road Metal (1,000 tons)	Chipping Norton Town Council	T. Mace, Chipping Norton	do.
Wesleyan Church and Schools, Bishop's Stortford	.....	Gordon & Gunton, Architects, Finsbury House, Blomfield-st., E.C	May 7
Chapel, Callington, Cornwall	.....	Rev. J. Dateon, Launceston-road, Callington	do.
Model Lodging House, Pottergate, Alnwick	.....	G. Reavell, jun., Architect, Alnwick	do.
Two Cottages, Kirkby Mallory, Hinckley	.....	A. W. Byron, 5, Low-pavement, Chesterfield	do.
Six Houses, North-street, Lockwood, nr. Huddersfield	.....	J. Berry, Architect, 3, Market-place, Huddersfield	do.
Cast Iron Water Mains, &c.	Selkirk Town Council	H. W. Taylor, Civil Engineer, Newcastle-on-Tyne	do.
Sewerage Works, Swinton (Lancs.)	Swinton and Pendlebury U.D.C.	H. Entwisle, Surveyor, Council Offices, Swinton	do.
Cast Iron Pipes, &c.	Withnell (Lancs.) U.D.C.	T. Beaver, Surveyor, Brinscall, near Blackburn	do.
Sewerage Works, &c., Cross Bank	Limehurst R.D.C.	Hinnell & Murphy, Civil Engineers, 26 Corporation-st., M'chester	do.
Culvert, Greenbank	Bristol Corporation	J. H. Yabbicom, Civil Engineer, 63, Queen-square, Bristol	do.
*Park Fence at Homes, Goldie Leigh	Woolwich Union	Church, Quick & Co., Architects, Woolwich	do.
Road Works, Trinity-crescent	Leith (N. B.) Town Council	Borough Surveyor, Town Hall, Leith	do.
Additions to Schools, Falmouth	National School Managers	Managers, Church House, Falmouth	do.
Additions to Sea Wall, Craighall-road	Leith (N.B.) Town Council	Borough Surveyor, Town Hall, Leith	do.
Three Buttresses, Craighall-road	do.	do.	do.
Offices	Goole Steam Shipping Co., Ltd.	G. W. Atkinson, Architect, 1, Mark-lane, Leeds	do.
*Extension of Boiler House at Osborne-street	Borough of Colchester	Borough Engineer, Town Hall, Colchester	do.
Waterworks, Llangattock	Crickhowell R.D.C.	T. Rees, Civil Engineer, Newport, Mon.	May 5
Wall at Electric Power Station, Newport-road	Cardiff Corporation	W. Harpur, Civil Engineer, Town Hall, Cardiff	do.
Greenhouse Foundations, &c., Roundhays Park	Leeds Corporation	City Engineer, Town Hall, Leeds	do.
Store Buildings, &c.	Chesterfield Co-op. Society	G. Haslam & Son, Architects, Euclid House, Ilkeston	do.
Factory and Workhouse, Dubb-lane, Bingley, Yorks.	Mr. R. Garnett	W. R. Nunns, Architect, Market-street, Bingley	May 9
Reconstructing Westfields Mill, nr. Blairgowrie, N.B.	.....	L. Falconer, Architect, 27, Bank Buildings, Blairgowrie	May 10
Rebuilding House, Bundoran, Ireland	.....	W. S. Jervois, Architect, Armagh	do.
Schools, Uxbridge	.....	Heron & Co., 54, High-street, Uxbridge	do.
Restoration Carmel Chapel, Beaufort, Wales	.....	Hy. Waters, Beaufort	do.
Church Tower, Durrow, Ireland	Rev. Canon Shortal	W. H. Byrne, Architect, 20, Suffolk-street, Dublin	do.
Additions to Asylum	Derby Corporation	B. J. Jacobs, Architect, Bowlalley-lane, Hull	do.
Surveyor's Materials	Church (Lancs.) U.D.C.	W. E. Wood, Surveyor, Church	do.
Street Works, &c., Back Grimshaw-street, West, &c.	do.	do.	do.
Additions to School	Llangadock School Board	J. F. Morgan, High Gate, Llangadock	do.
House and Shop, Llanharan, Wales	.....	Jas. Smith, G. W. Cottages, Llanharan	do.
Additions to Asylum	Derby Corporation	B. S. Jacobs, Architect, Bowlalley-lane, Hull	do.
Church Tower, &c., Durrow, Queen's Co.	Canon Shortal	W. H. Byrne, Architect, 20, Suffolk-street, Dublin	do.
Show Buildings, &c., Enniscorthy, Ireland	.....	E. S. O'Brien, Architect, The Westgate, Wexford	do.
Extensions to Car Sheds, Lewes-road	Brighton Corporation	F. J. Tillstone, Town Hall, Brighton	May 12
Twenty-seven Cottages	Carlow U.D.C.	J. Byrne, Civil Engineer, Town Hall, Carlow	do.
Church and Schools, Padiham-road, Burnley	.....	J. B. Thornley, Architect, 45, Market-street, Darwen	do.
School, Offices, &c., Llanbedrgoch, Anglesby	.....	J. Owen, Architect, Menai Bridge, North Wales	do.
Additions to Offices, North-street	Bishops Stortford U.D.C.	R. S. Scott, Civil Engineer, North-street, Bishops Stortford	do.
*Water Supply Works	Faringdon R.D.C.	Council's Engineer, Abingdon	do.
*Wood Paving Blocks	St. Marylebone Borough Council	Council's Engineer, Town Hall, Marylebone, W.	do.
*Eight Transformer Chambers	West Ham Council	Council's Engineer, Town Hall, West Ham, E.	May 13
*Storage Reservoir at Barnattin	Drogheda Corporation Waterwrks.	G. N. Kelly, Civil Engineer, Gas and Water Offices, Drogheda	do.
Subway, &c.	Dublin Corportion	S. Harty, Civil Engineer, City Hall, Dublin	do.
*Hot-water Supply at Isolation Hospital, Stonebridge	Willesden U.D.C.	Engineer to the Council, Public Offices, Dyne-road, Kilburn, N.W.	do.
Road Works, Llanwern Hill	Magor R.D.C.	J. Thomas, Union Offices, Queen's Hill, Newport	do.
School, Mynyddcerrig	Llandebie U. D. School Board	D. Jenkins, Architect, Llandilo	do.
Shed, Pontypool-road	Great Western Railway Co.	J. K. Mills, Paddington Station, London	do.
*Concrete River Wall, &c.	Fulham Borough Council	Council's Engineer, Town Hall, Fulham	May 14
*Making-up and Paving Street	do.	do.	do.
*Lunatic Wards at Workhouse, Tooley-street	St. Olave's Union	Newman & Newman, Architects, 31, Tooley-street, S.E.	May 15
*Alterations to Lecture Hall, Royal Hill	Metropolitan Boro' of Greenwich	Town Clerk, Town Hall, Greenwich-road, S.E.	May 16
*Building Public Baths, Old Trafford, Manchester	Stretford U.D.C.	Ernest Woodhouse, Architect, 88, Mosley-street, Manchester	May 17
*Engineering and Boilers, &c., Public Baths	do.	do.	do.
*Gatehouse Lodge and Four Cottages, near Horley	London County Council	Architect's Department, County Hall, Spring Gardens, S.W.	do.
Pipe Sewers, &c.	Penrith (Cumberland) R.D.C.	J. Graham, Engineer, Bank-street, Carlisle	May 19
*Extension of Asylum	East Riding Lunatic Asylum Com.	Board Room, at Asylum, Beverley	May 21
*Fog Signal House, &c., near Whitby	Trinity House Corporation	The Lighthouse, Whitby	May 22
*Erection of Schools	Lowestoft School Board	Clerk to Board, 115, High-street, Lowestoft	May 23
*Additions, &c, Higham Hill Schools	Walthamstow School Board	H. Prosser, Architect, Walthamstow	May 26
*Erection of Palace Theatre, Halifax	.....	R. Horsfall & Son, Architects, Halifax	No date
Two Houses, Higham Ferrers, Northants	.....	G. Hall, Architect, Higham Ferrers	do.
House, Waterloo-road, Hauslet	.....	Danby & Simpson, Architects, 10, Park-row, Leeds	do.
Bank Premises, Great Horton	Bradford Old Bank, Ltd.	Jackson & Priestman, Architects, Exchange Building, Bradford	do.
Rebuilding House, Parkstone, Dorset	.....	Hawker & Mitchell, Architects, Bournemouth	do.
Church, Dartnall, near Sheffield	.....	Moulds & Porritt, Architects, 77, King-street, Manchester	do.
Factory, &c., Chesterfield-st., Carlton, nr. Nottingham	.....	J. H. Savidge, Architect, Wheelergate, Nottingham	do.
Schools, Apperley Bridge, Leeds	.....	Danby & Simpson, Architects, 10, Park-row, Leeds	do.
*Engineering and other Works	Malling Union	W. L. Grant, Architect, Sittingbourne	do.
shop, Chimney, &c., Long Eaton	Messrs. S. J. Claye, Ltd.	E. R. Ridgeway, Architect, Long Heaton, near Nottingham	do.
Alterations to Business Premises, 48, Highgate, Kendal	Messrs. T. Leighton & Son	J. Hutton, Architect, Kendal	do.
*Laundry Buildings, &c.	Dudley Union	A. Marshall, Architect, King-street, Nottingham	do.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Required.	Salary.	Application to be in
*Building Inspector	Hendon U.D.C.	150*l.*	May 12
*Clerk of Works	Kingsbury U.D.C.	Not stated	May 14
*Inspector of Buildings & Private Street Improvements	Beckenham U.D.C.	130*l.*	May 15
*Superintendent of Sewers and Drains	St. Marylebone Borough Council	150*l.*	May 16
*Road Foreman	Hornsey U.D.C.	2*l.* 5*s.* per week, &c.	May 17
*Assistants	London County Council	Not stated	May 19
*Chief Assistant	do.	400*l.*	May 22

Those marked with an asterisk (*) are advertised in this Number. *Competitions*, p. iv. *Contracts*, pp. iv. vi. viii. x. & xxii. *Public Appointments*, xviii. & xix.

TENDERS *(Continued)*:—

BRENTFORD.—For the erection of schools, Ealing-road, for the Old Brentford Board School. Messrs. Nowell Parr & A. E. Kates, architects, 5, Brent-road, Brentford, W.:—

Kellet & Sons, Ltd.	£14,911 0 0	W. Wisdom	£12,051 8 4
J. W. Brooking	13,140 0 0	R. M. Hughes	11,974 0 0
Barker & Co.	12,650 0 0	B. E. Nightingale	11,933 0 0
Foster Bros.	12,638 0 0	F. G. Minter	11,907 0 0
Parsons & Co.	12,553 0 0	E. Chamberlain	11,763 0 0
R. L. Tongue	12,499 0 0	W. Blackburn	11,671 0 0
Soole & Son	12,454 0 0	Gaze & Son	11,594 0 0
Godson & Son	12,390 0 0	Gough & Co., Hendon*	11,534 0 0
F. & F. Davey	12,200 0 0	Braid, Pater, & Co.	11,408 0 0
Chessum & Son	12,054 0 0		

[Architect's estimate, £11,820.]

CHERRYHINTON (near Cambridge). — For the forming and making of new roads and paths, for the Chesterton Rural District Council. Messrs. Waters & Worrall, engineers, 2, Sidney-street, Cambridge :—

Bolton Bros.	£14,890 0 0
Swann Bros.	14,000 10 0
Ford	13,476 0 0
Coulson & Lofts	13,336 0 0
Trueman	12,345 0 0
Wallace & Innes	11,152 10 9
Jones & Sons, Neath and Cherryhinton, Cambs.*	10,464 3 6
Saunders & Saunders	7,067 13 0

COLWYN BAY (Wales).—For supplying and laying tar or asphalt pavements, for the Urban District Council. Mr. Wm. Jones, C.E., Council Offices, Colwyn Bay :—

	per sup. yd. s. d.		per sup. yd. s. d.
D. Grundy	3 6	J. Inkerman Payton	2 3
Asphaltic Limestone Co.	3 6	F. A. Drake	2 0
Constable & Co.	2 8	North of England Asphalt Co.	1 11
W. H. & E. Stainsbury	2 6½	W. & A. Higginbottom, Manchester*	1 6½
East Acton Tar Paving Co.	2 6	F. Sheeren	1 6
W. Shepherd	2 6	Hughes & Evans	1 6
La Brea Asphalt Co.	2 3		

COLWYN BAY.—For laying a water main (1,850 yards), Conway-road to Rhos, for the Urban District Council. Mr. W. Jones, C.E., Council Offices, Colwyn Bay :—

B. C. Farmer	£369 11 6	Hughes & Rowlands, Colwyn Bay*	£206 14 0
W. Westwood	321 18 0	Thos. Rowland	204 9 0
R. D. Hughes	222 0 0	Calder & Evans	163 11 8
Mooney & Co.	216 10 6		
Parry & Jones	212 14 0		

FRIMLEY (Surrey).—For the erection of a sanatorium for consumptives for the Brompton Consumption Hospital. Mr. Edwin T. Hall, architect, 54, Bedford-square, London, W.C. :—

Higgs & Hill	£65,450 0	Laurence & Son	£57,362 0
W. Watson	63,193 0	Leslie & Co.	57,250 0
Foster & Dickson	61,166 0	Shillitoe & Son	57,000 0
The Haslemere Builders	58,622 12	Holliday & Greenwood*	55,255 0

GLASHEEN (Cork).—For additions, &c., to Peterborough cottage, for Mr. R. Young. Messrs. W. H. Hill & Son, architects, 28, South Mall, Cork :—

John Kearns, Fish-street, Cork* £330

GRIFFITHSTOWN (Wales).—For the erection of road works, Windsor-road, for the Panteg Urban District Council. Mr. Jas. Wallace, surveyor, Sunny Bank, Griffithstown :—

P. Chapman, Wainfellan, Pontypool £150

HERTFORD.—For roadworks. Mr. John H. Jevons, Borough and Waterworks Engineer and Surveyor :—

Felkin & Watson	£991 7 7	A. Catley	£756 11 0
Norris & Son	931 13 0	Wallace & Innes	759 19 0
G. Tomlinson	869 0 0	Free & Sons	726 16 0
T. Adams	832 16 0	E. R. Kemp, Hertford*	707 18 6
S. Kitteringham	814 13 4		

HERTFORD.—For laying water mains. Mr. John Hy. Jevons, Borough and Waterworks Engineer :—

A. T. Catley	£793 5 6	Rayment & Son	£648 14 4
Soan	789 12 2	G. Tomlinson	644 13 3
S. Kitteringham	779 17 7	W. H. Hinkins	588 19 0
Ekins & Co.	687 15 3		

HUNSTANTON.—For new house at Hunstanton, for Mr. H. J. Finch. Mr. H. J. Green, architect, 31, Castle Meadow, Norwich :—

John Cracknell	£1,884 6 0	Chambers & Son	£1,670 0 0
F. Giddings	1,821 12 9	Reuben Shanks, Chatteris, Cambs.†	1,650 0 0
P. Bamyard	1,813 7 10		
F. Southgate	1,748 0 0		

ILFRACOMBE.—For St. Peter's New Church, Ilfracombe, Devon. Mr. Geo. H. Fellowes Prynne, architect, 6, Queen Anne's-gate, Westminster. Quantities by Mr. R. Henry Hale, 33, Old Queen-street, Westminster, S.W. :—

W. Wiffen	£10,796 17 0½	F. J. Reed	£9,866 5 7
Stephens, Pastow, & Co.	10,692 3 4	Willcocks & Co.	9,483 6 0
W. Dart	10,352 0 0	G. Bowen	8,814 17 1
Luscombe & Sons	9,992 0 0	Britten & Pickett, Ilfracombe*	7,531 8 8

KINGSBURY.—For Sewerage Contract No. 1, for the Urban District Council of Kingsbury (Middx.) :—

	Wraggs or Suttons Pipes, of a thickness of ⅛th of the Internal Diameter.	Hamblette Ironware Pipes.	Wraggs or, Suttons Pipes of a thickness of ⅛th of the Internal Diameter.
Meston & Hale	£9,481 10 7	£9,253 0 4	£9,253 0 4
R. Ballard, Ltd.	9,059 0 0	8,947 0 0	8,897 0 0
T. Adams	9,031 12 3	8,852 12 3	8,852 12 3
J. Dickson	9,037 17 10	8,793 16 4	8,793 16 4
Killingback & Co.	8,302 11 2	8,044 7 11	8,044 7 11
John Jackson	7,828 18 7	7,653 16 1	7,653 16 1
Clift Ford	7,697 0 0	7,532 0 0	7,532 0 0
J. A. Dunmore	7,188 17 10	7,030 4 9	7,030 4 9
Green & Co.	7,063 0 0	6,930 10 0	6,877 10 0

[Engineer's estimate, £8,035 4s. 7d.]

LEEDS.—For alterations to the Priory, Cumberland-road, Headingley. Messrs. G. F. Danby and E. M. Simpson, architects, 10, Park-row, Leeds :—

Brick and Stone.—M. Wilson, Moor-road, Headingley*	£750 0
Joinery.—T. Harrod, Craven-road, Leeds*	455 0
Slating.—Atkinson & Son, Leeds*	57 0
Plumbing.—J. W. Vine, Leeds*	194 15
Plastering.—Pennington & Sons, Leeds*	108 0
Painting.—Dykes & Son, Leeds*	31 14

LONDON.—For decoration, &c., in offices, 85, Gresham-street, E.C. Messrs. George Baines & R. Palmer Baines, architects, 5, Clement's Inn, Strand, W.C. :—

Battley, Sons, & Holness	£168	Lascelles & Co., 121, Bunhill-row, E.C.*	£137
Collingwood & Co.	148		

LONDON.—Addition of new vestries, heating chamber &c., to St. Peter's Church, Streatham. Mr. Geo. H. Fellowes Prynne, architect, 6, Queen Anne's-gate, Westminster. Quantities by Mr. R. Henry Hale, 33, Old Queen-street, Westminster, S.W. :—

Smith & Son	£2,394	Lorden & Son	£2,144
Goddard & Sons	2,200	F. G. Minter	2,127
J. & C. Bowyer	2,168	C. Ansell, Lambeth*	2,121

MAPPLEWELL (Yorks). — For the erection of two houses, shops, &c., Four Lanes End, for Mr. John Stevens. Messrs. Crawshaw & Wilkinson, architects, 13, Regent-street, Barnsley :—

Excavating, Masonry, and Brickwork.—Turton & Field, Stairfoot	£375 0 0
Carpentry and Joinery. — J. Hall, Stairfoot	119 5 0
Slating. — W. Scholey, Doncaster-road, Barnsley	33 2 0
Plumbing and Glazing.—B. S. Ledger, Staincross, Barnsley	19 14 4
Plastering.—Miss Fleming, Eastgate, Barnsley	30 5 0
Painting.—A. Turner, Mapplewell	10 0 0

NETHERFIELD.—For erection of three houses, Godfrey-street, Netherfield, Notts. Mr. H. Allcock, architect, Wheeler Gate, Nottingham :—

Fletcher	£890 0	J. Lewin	£775 0
W. & J. Simons	855 0	T. & W. Lee	765 0
Deabill	820 0	Geo. Tegerdine	700 0
Harper	808 0	Brooks Bros.*	621 16

NOTTINGHAM.—For the erection of stationers' warehouse, Woolpack-lane, Nottingham. Mr. H. Allcock, architect, Wheeler Gate, Nottingham :—

Dennett & Ingle	£1,400 0	F. Messom	1,278 0
J. G. Thomas	1,377 0	Crane & Co., Ltd.	1,277 0
J. Shaw	1,285 9	Williamson & Co.*	1,277 0

SALISBURY.—For new shop and premises, Blue Boar-row. Mr. Alfred C. Bothams, architect, Chipper-lane, Salisbury :—

Vincent & Follard	£2,230	Young Bros.	£2,035
Wort & Way	2,098	Dawkens	1,985
Kite	2,116	E. Hale, Castle-street*	1,980
Hains Bros.	2,075		
Mitchell	2,059		

S. COLOMB MAJOR.—For restoration of S. Colomb Major Church, Cornwall. Mr. Geo. H. Fellowes Prynne, architect, 6, Queen Anne's Gate, Westminster. Quantities by Mr. R. Henry Hale, 33, Old Queen-street, Westminster, S.W. :—

Willcocks & Co.	£6,198 7 4	J. Colliver	£4,119 2 7
J. C. Lang	4,545 7 11	Hobbs & Son	3,690 0 0
S. Trehane	4,486 13 4	W. Wiffen, Holsworthy*	3,615 1 3
W. Dart	4,188 0 0		

[The tower, and new vestry work not to be executed at present.]

SHEFFIELD.—For lych gate and boundary walling to the Brightside Churchyard, Brightside, Sheffield, for the Rev. B. L. Parkin, M.A., Vicar of Brightside. Messrs. Hall & Fenton, architects, 14, St. James'-row, Sheffield. Quantities by the architects :—

Martin & Hughes	£477 0	Wilkinson & Sons	£322 10
G. Malpass	380 15	W. Ainsley	293 4
A. Bradbury	373 0	J. S. Teanby*	266 0
T. Ireson	344 0	M. Hancock	267 0
T. Astling	334 0	M. A. Earl	265 0
H. White	328 0	[All of Sheffield.]	

SHEFFIELD.—For alterations and additions to Nos 50 and 52, Sheffield-moor, for Messrs. the Trustees of the late Jno. Spafford. Messrs. Hall & Fenton, architects, 14, St. James's-row. Quantities by the architects :—

Dyson, Son, & Gregory	£2,059 10	J. H. Lilleker	£1,954 0
J. Musson	2,025 0	C. H. Gillum	1,950 0
Ash, Son, & Biggin	2,015 0	T. Margerrison	1,870 0
F. Turner	1,979 0	G. Portass	1,810 0
Mastin & Son	1,959 0	G. Allen, Bolsover-street*	1,729 0

[All of Sheffield.]

SHEFFIELD.—For rebuilding "The Light Horseman" public-house, Penistone-road, Sheffield, for Messrs. the Directors of Thomas Rawson & Co., Limited. Messrs. Hall & Fenton, architects and surveyors, 14, St. James-row, Sheffield. Quantities by the architects :—

Dyson, Son, & Gregory	£1,255 0	F. Turner	£1,137 13
Mastin & Son	1,221 0	T. Margerrison	1,110 0
A. Bradbury	1,175 0	J. Masson	1,074 0
J. H. Lilleker	1,174 0	E. Moore	1,032 0
Abey & Son	1,144 13	Geo. Allen, Bolsover-street*	1,007 0

[All of Sheffield.]

SHENFIELD.—For residence at Shenfield, Essex, for Mr. H. H. Keddell. Messrs. George Baines and R. Palmer Baines, architects, 5, Clement's Inn, Strand, W.C. :—

S. T. Scott	£2,450	Battley, Sons, & Holness	£2,193
G. T. Hosking	2,424	Brown & Son	2,102
T. Chessam & Sons	2,420	Hammond & Son	2,189
Turtle & Appleton	2,346	F. & H. F. Higgs	2,152
A. & T. Cross	2,314	E. West, Chelmsford*	1,985
Johnson & Co., Ltd.	2,279		

* Accepted with slight additions.

SWANSEA.—For the erection of house, Mirador Estate, Swansea. Mr. Glendinning Moxham, architect, Swansea :—

John Davies	£1,580	Lloyd Bros.	£1,450
David Jenkins	1,550	Walters & John	1,410
Bennett Bros.	1,550	Henry Billings	1,350
Griffith Davies	1,500	J. & F. Weaver*	1,330

SWANSEA.—For the erection of convalescent home, Cwmdonkin, Swansea. Mr. Glendinning Moxham, architect, Swansea :—

Goodridge & Son	£4,985	J. & F. Weaver	£4,655
Lloyd Bros.	4,909	Henry Billings	4,560
Thomas Richards	4,872	Walters & John	4,266
Bennett Bros.	4,777	Thomas Davies	4,266
D. Jenkins	4,735	John Williams	4,180
Marles & Son	4,715	Griffith Davies*	4,047
John Davies	4,672		

WEST HAM.—For the erection of a block of school buildings and appurtenances, to be known as the Napier-road Schools, in the County Borough of West Ham, for the West Ham School Board. Mr. William Jacques, Architect to the Board, 2, Fen-court, E.C. Quantities by Messrs. R. L. Curtis & Sons :—

Holliday & Greenwood	£29,297	W. J. Mattison	£27,158
W. Gladding	28,935	Stimpson & Co.	27,150
A. E. Symes	28,852	G. Sharpe	26,920
A. Reed	27,870	Gregar & Son, Stratford*	26,486
Battley, Sons, & Holness	27,772		

* Accepted subject to the approval of the Board of Education.

LONDON SCHOOL BOARD TENDERS

At the last meeting of the London School Board, the Works Committee submitted the following lists of tenders. Mr. T. J. Bailey is the Board's Architect :—

* *Recommended for acceptance.*

GREENWICH.—"Slade" manual training centre for twenty (with extension to forty) :—

F. & H. F. Higgs	£1,139 0	J. & C. Bowyer	£897 0
W. Downs	1,055 0	Marsland & Sons	893 0
Johnson & Co.	1,020 0	E. Triggs	883 0
Smith & Sons, Ltd.	964 0	Kirk & Randall	878 0
Bulled & Co.	957 0	Thomas & Edge	852 10
Garrett & Son	920 0	T. D. Leng*	824 0

GREENWICH (Haseltine-road).—Enlargement. Extending low-pressure hot-water apparatus to three new corridors on ground, first, and second floors :—

Werner, Pfleiderer, & Perkins, Ltd.	£153 6 6	J. Eson	£123 0 0
Kite & Co.	135 0 0	Palowkar & Sons	114 10 0
Knight & Sons	128 0 0	Bates & Sons*	90 10 0

[Provision of £117 included in contract for enlargement.]

HACKNEY (Chisenhale-road).—(Enlargement)—Boys, 48; girls, 48; infants, 48. Total, 144, with additional cloak-rooms for each department :—

Willmott & Sons	£2,725	Miskin & Sons	£2,520
Gregar & Son	2,677	F. & F. J. Wood	2,513
Chessum & Sons	2,651	Lawrance & Sons	2,491
Snewin Bros. & Co.	2,635	J. & M. Patrick	2,454
Shurmur & Sons, Ltd.	2,583	C. Cox	2,439
Treasure & Son, London and Shrewsbury*	£2,387		

MARYLEBONE (Haverstock Hill).—Special school; three rooms of twenty each :—

Gough & Co.	£4,964	C. Cox	£4,068
McCormick & Sons	4,245	Williams & Son	3,880
Dearing Son	4,217	Lawrance & Sons	3,849
Willmott & Sons	4,150	Simpson & Son	3,752
Grover & Son	4,142	Stimpson & Co.	3,714
L. H. & R. Roberts	4,135	Treasure & Son	3,692
Marchant & Hirst	4,118	E. Triggs*	3,553
Wall & Co.	4,118		

MARYLEBONE (Mansfield-road).—Special school for mentally defective children. Enlargement, two classrooms of twenty each :—

Wall & Co.	£1,480	C. Cox	£1,375
Marchant & Hirst	1,444	Dearing & Son	1,336
Treasure & Son	1,431	Willmott & Sons	1,312
General Builders, Ltd.	1,408	Williams & Son	1,306
McCormick & Sons	1,389	Lawrence & Sons*	1,270

[See also next page.

Supply of TIMBER for use in Carving Classes, on a running Contract :—

Timber (planed on one side only).	Burton, Irine, & Read, Ltd.	G. & T. B. Cobbett.	Hahn & Co.	J. F. & G. Harris	Ingram, Perkins, & Co.	W. J. Latchford	J. Latham, Ltd.	London School Furniture Co.	Mallinson & Co.*
	d.	d.	d.	d.	d.	d.	d.	d.	d.
1-in. Yellow Pine (in 8-ft. lengths)..... per ft. super.	4½	5	—	6	5	—	6½	4½	4
¾-in. " " " ..... "	3½	4	—	5	4	—	5	3½	3
1-in. Bass or American Whitewood (good green colour) "	3½	3½	—	5	3½	—	3½	4	3½
¾-in. " " " " " "	3	2½	—	4	2½	—	3½	3½	3
1-in. Oak (not less than 6 in. wide) ..... "	4½	3½	—	11	4½	5	4½	4½	4½
¾-in. " " " " ..... "	4	3½	—	8½	4½	—	3½	4	3½
1-in. American Walnut (not less than 9 in. wide) "	7½	7½	—	13	10	10½	9½	11	9
¾-in. " " " " " "	6	7½	—	10	8	—	8	9½	7½
1-in. Satin Walnut (not less than 8 in. wide) "	3½	3½	—	—	3½	4	3½	4½	3½
¾-in. " " " " " "	3	3½	—	—	2½	—	3½	3½	3

† Planed on both sides. ‡ Unplaned.

HAMMERS (coal, small), DRAIN SCOOPS (old and new patterns), and TIN LANTERNS :—

——	Small Coal Hammers. per dozen.	Drain Scoops (old pattern). each.	Drain Scoops (new pattern) 5½ in. each.	Drain Scoops (new pattern) 5 in. each.	Drain Scoops (new pattern) 4½ in. each.	Drain Scoop (new pattern 3½ in. each.	Tin Lanterns. each.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Bird & Co.	12 0	*3 6	3 0	2 11	2 10	2 6	2 3
Braby & Co., Ltd.	—	4 0	*2 10	*2 9	*2 8	*2 7	—
R. H. & J. Pearson, Ltd.	*11 9	—	—	—	—	—	*1 8½

WEST LAMBETH (Stockwell-road).—Improvements. Providing and fixing complete low-pressure hot-water apparatus to three halls, nineteen classrooms, corridors, cloakrooms, and lavatories; also providing auxiliary apparatus to classrooms (all boys', girls', and infants'), including cutting-out and altering the existing low-pressure apparatus :—

Wippell Bros. & Row.....	£740 0	Paragon Heating Co.	£548 0
Comyn Ching & Co., Ltd.	697 10	Duffield & Sons ..	530 0
Turner & Co.	692 0	The Brightside Foundry and Engineering Co., Ltd.*	517 0
Price Lea & Co. ..	665 0		
Oldroyd & Co., Ltd.....	619 0		

Supply of CHAIRS (small Windsor and arm), on running contracts :—

	Arm chairs. Per 12.	Small chairs. Per 100.	Small chairs made 4in. higher than standard size, each.
	£ s. d.	£ s. d.	s. d.
S. W. Bateman	4 11 6*	13 6 8	3 0
Cartwright & Son....	4 16 0	12 18 4*	3 0*
Cox & Son, Ltd.	5 14 0	14 11 8	3 9
Goodall, Lamb, & Heighway, Ltd.....	6 6 0	17 8 8	4 $2\frac{52}{100}$
Lawes & Co.	6 12 0	17 10 0	4 3

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